## Module description

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Stochastics 1</td>
<td>10-M-STO1-152-m01</td>
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### Module coordinator

Dean of Studies Mathematik (Mathematics)

### Module offered by

Institute of Mathematics

<table>
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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>9</td>
<td>(not) successfully completed</td>
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### Duration

1 semester under graduate

### Other prerequisites

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### Contents

Combinatorics, Laplace models, selected discrete distributions, elementary measure and integration theory, continuous distributions: normal distribution, random variable, distribution function, product measures and stochastic independence, elementary conditional probability, characteristics of distributions: expected value and variance, limit theorems: law of large numbers, central limit theorem.

### Intended learning outcomes

The student is acquainted with fundamental concepts and methods in stochastics, applies these methods to practical problems and knows about the typical fields of application.

### Courses

V (4) + Ü (2)

### Method of assessment

(a) written examination (approx. 90 to 180 minutes, usually chosen) or (b) oral examination of one candidate each (15 to 30 minutes) or (c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate)

Language of assessment: German and/or English creditable 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)

### Module appears in

- Bachelor' degree (1 major) Mathematics (2015)
- Bachelor' degree (1 major) Computational Mathematics (2015)

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