### Module title

**Stochastics 1 for Business Mathematics**

**Abbreviation**

10-M-STB1-152-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

Undergraduate

### Other prerequisites

- -

### 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

- Written examination (approx. 90 to 180 minutes, usually chosen) or
- Oral examination of one candidate each (15 to 30 minutes) or
- Oral examination in groups (groups of 2, 10 to 15 minutes per candidate)

Language of assessment: German and/or English

### Allocation of places

- -

### Additional information

- -

### Referred to in LPO I

- Examination regulations for teaching-degree programmes

### Module appears in

- Bachelor’ degree (1 major) Economathematics (2015)
- Bachelor’ degree (1 major) Economathematics (2017)
- Bachelor’ degree (1 major) Economathematics (2021)