Overview Stochastics 1 and Stochastics 2

Module coordinator
Dean of Studies Mathematik (Mathematics)

Module offered by
Institute of Mathematics

ECTS
12

Method of grading
numerical grade

Only after succ. compl. of module(s)
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Duration
1 semester

Module level
undergraduate

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; elements of data analysis, statistics of data in normal and other distributions, elements of multivariate statistics.

Intended learning outcomes
The student is acquainted with fundamental and advanced concepts and methods in stochastics. 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 two topics in applied mathematics as agreed upon with the examiner. Each topic may only be selected as the subject of one examination in the sub-fields Gesamtüberblick (Overview).
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
Bachelor' degree (1 major) Mathematics (2015)
Bachelor' degree (1 major) Computational Mathematics (2015)