mat810 - Quantitative Risk Management

Module label
Quantitative Risk Management

Module code
mat810

Credit points
9.0 KP

Workload
270 h

Used in course of study
- Master's Programme Mathematics > Mastermodule

Contact person
Module responsibility
- Marcus Christiansen
- Angelika May
- Peter Ruckdeschel

Entry requirements
Skills to be acquired in this module
Students shall learn about fundamental mathematical concepts of modern risk management in the insurance industry.

Module contents
Fundamentals of ruin theory, risk measures, modelling of dependent risks, fundamentals of Asset-Liability-Management, performance measures, mathematical and legislative foundations of the Solvency II process, statistical Monte Carlo methods, stochastic internal business models, allocation principles of risk capital.

Reader’s advisory

Links
Languages of instruction
- English
- German

Duration (semesters)
1 Semester

Module frequency
im 2-Jahres-Zyklus

Module capacity
unlimited

Module art
Wahlpflicht

Lern-/Lehrform / Type of program
lecture + tutorial

Vorkenntnisse / Previous knowledge

Examination
Time of examination
in the first two weeks of the semester vacation
Type of examination
written or oral exam or solving of exercises

Course type
Comment
SWS
Frequency
Workload attendance
Lecture
4.00
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56 h
Exercises
2.00
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28 h

Total time of attendance for the module
84 h