Module Description
31-M-Fin3_a Finance 3

Faculty of Business Administration and Economics

Version dated Apr 6, 2026

This module guide reflects the current state and is subject to change. Up-to-date information and the latest version of this document can be found online via the page

https://ekvv.uni-bielefeld.de/sinfo/publ/modul/187102620

The current and valid provisions in the module guide are binding and further specify the subject-related regulations (German "FsB") published in the Official Announcements of Bielefeld University.

31-M-Fin3_a Finance 3

Faculty

Faculty of Business Administration and Economics

Person responsible for module

Prof. Dr. Giorgio Ferrari

Regular cycle (beginning)

Every winter semester

Credit points

10 Credit points

Competencies

Students obtain insight into a specific current area of research of mathematical finance and learn the necessary advanced mathematical methods. Within the seminar they train to familiarize with a research topic by themselves and to present it professionally to others.

Die Studierenden erhalten Einblick in ein spezielles aktuelles Forschungsgebiet der mathematischen Finanztheorie und erlernen die dabei benötigten fortgeschrittenen mathematischen Methoden. In dem Seminar üben sie sich darin, sich selbständig in ein Forschungsthema einzuarbeiten und dieses qualifiziert zu vermitteln.

Content of teaching

Varying topics will be covered, including
-stochastic volatility models
-risk measures and robust models
-equilibrium models
-strategic models in finance

Mögliche Themen könnten sein:
-Stochastische Volatilitätsmodelle
-Risikomaße und robuste Modelle
-Gleichgewichtsmodelle
-Strategische Modelle in der Finanzmathematik

Recommended previous knowledge

Finance 1; Finance 2

Necessary requirements

24-M-STA und entweder 24-M-Fin1 oder 24-M-Fin2.

Explanation regarding the elements of the module

Die Vorlesung behandelt ein weiteres Themengebiet, als ein Seminarvortrag reflektieren soll, und bedarf somit einer eigenen Prüfung.

Module structure: 2 bPr [1]

Courses

Title	Type	Regular cycle	Workload [5]	LP[2]
Finance 3 (Seminar)	seminar	WiSe	120 h (30 + 90)	4 [Pr]
Finance 3 (Vorlesung)	lecture	WiSe	120 h (30 + 90)	4 [Pr]

Examinations

Allocated examiner	Type	Weighting	Workload	LP[2]
Teaching staff of the course **Finance 3 (Seminar) (seminar)** *45-minütige Präsentation*	Präsentation	1	30h	1
Teaching staff of the course **Finance 3 (Vorlesung) (lecture)** *20-minütige mündliche Prüfung oder 60-minütige Klausur*	Klausur o. mündliche Prüfung	1	30h	1

Legend

1	The module structure displays the required number of study requirements and examinations.
2	LP is the short form for credit points.
3	The figures in this column are the specialist semesters in which it is recommended to start the module. Depending on the individual study schedule, entirely different courses of study are possible and advisable.
4	Explanations on mandatory option: "Obligation" means: This module is mandatory for the course of the studies; "Optional obligation" means: This module belongs to a number of modules available for selection under certain circumstances. This is more precisely regulated by the "Subject-related regulations" (see navigation).
5	Workload (contact time + self-study)
SoSe	Summer semester
WiSe	Winter semester
SL	study requirement
Pr	Examination
bPr	Number of examinations with grades
uPr	Number of examinations without grades