

Module Handbook

TUK MODHB Homepage

Module MAT-25-20E-M-4

Elective Module Specialisation Mathematics (extended) (M, 6.0 LP)

Module Identification

Module Number	Module Name	CP (Effort)
MAT-25-20E-M-4	<i>Elective Module Specialisation Mathematics (extended)</i>	6.0 CP (180 h)

Basedata

CP, Effort	6.0 CP = 180 h
Position of the semester	1 Sem. in WiSe/SuSe
Level	[4] Bachelor (Specialization)
Language	[DE/EN] German or English as required
Module Manager	Lossen, Christoph, Dr. habil. (WMA DEPT: MAT)
Lecturers	The Lecturers of the department Mathematics
Area of study	[MAT-HPT] Mathematics (B.Sc. 3rd year - general)
Reference course of study	[MAT-82.105-SG] B.Sc. Mathematics
Lifecycle-State	[NORM] Active

Notice

If this module is used for the section "Section Internship / Elective Area" of the Bachelor's study course [MAT-82.105-SG], the grade of the module examination is not included in the computation of the grade of the Bachelor's examination.

Courses

Choice of lectures with a total of 4V from the range of courses offered for the respective specialisation:

Type/SWS	Course Number	Choice in Module-Part	Choice in Course-Pool	SL	PL	CP	Sem.
KPOOL	MAT-40-4V-KPOOL-4	WP	WP-1	-	PL1	6.0	*
KPOOL	MAT-50-4V-KPOOL-4	WP	WP-1	-	PL1	6.0	*
KPOOL	MAT-70-4V-KPOOL-4	WP	WP-1	-	PL1	6.0	*
KPOOL	MAT-80-4V-KPOOL-4	WP	WP-1	-	PL1	6.0	*

- About [**MAT-40-4V-KPOOL-4**]: Title: "Elective Courses Algebra, Geometry and Computeralgebra (4V, B.Sc.)"; Self-Study: 180 h
- About [**MAT-40-4V-KPOOL-4**]: When choosing the course pool, a course must be selected from it.
- About [**MAT-50-4V-KPOOL-4**]: Title: "Elective Courses Optimisation and Stochastics (4V, B.Sc.)"; Self-Study: 180 h
- About [**MAT-50-4V-KPOOL-4**]: When choosing the course pool, a course must be selected from it.
- About [**MAT-70-4V-KPOOL-4**]: Title: "Elective Courses Analysis and Stochastics (4V, B.Sc.)"; Self-Study: 180 h
- About [**MAT-70-4V-KPOOL-4**]: When choosing the course pool, a course must be selected from it.
- About [**MAT-80-4V-KPOOL-4**]: Title: "Elective Courses Modelling and Scientific Computing (4V, B.Sc.)"; Self-Study: 180 h
- About [**MAT-80-4V-KPOOL-4**]: When choosing the course pool, a course must be selected from it.

Besides the courses listed in the respective catalogue, other courses from the chosen mathematical field of specialisation can also be selected.

Examination achievement PL1

- Form of examination: **oral examination (20-30 Min.)**
- Examination Frequency: each semester

Evaluation of grades

The grade of the module examination is also the module grade.

Contents

See the respective course description.

Competencies / intended learning achievements

Upon successful completion of this module, the students have acquired in-depth knowledge in an area of mathematics. They have learnt to work independently in scientific work and have gained further experience in the presentation and communication of mathematical topics.

Literature

See the respective course description.

Requirements for attendance of the module (informal)

Depending on the choice of lecture, special requirements (see course description).

Modules:

- [MAT-10-1-M-2] Fundamentals of Mathematics (M, 28.0 LP)

Requirements for attendance of the module (formal)

Proof of successful participation in the exercise classes of "Fundamentals of Mathematics I" or "Fundamentals of Mathematics II" (e.g. from the module [MAT-10-1-M-2] "*Fundamentals of Mathematics*") is prerequisite for participation in the module examination.

References to Module / Module Number [MAT-25-20E-M-4]

Course of Study	Section	Choice/Obligation
[MAT-82.105-SG] B.Sc. Mathematics	[Internship / Occupational Modules] Internship / Elective Area	[WP] Compulsory Elective