

Module Handbook (<https://modhb.uni-kl.de/>)

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Module MAT-22-00RS-M-5

Development of Mathematics in Longitudinal and Cross Sections (RS) (M, 8.0 LP)

Module Identification

Module Number	Module Name	CP (Effort)
MAT-22-00RS-M-5	<i>Development of Mathematics in Longitudinal and Cross Sections (RS)</i>	8.0 CP (240 h)

Basedata

CP, Effort	8.0 CP = 240 h
Position of the semester	1 Sem. in SuSe
Level	[5] Master (Entry Level)
Language	[DE] German
Module Manager	Lossen, Christoph, Dr. habil. (WMA DEPT: MAT) (/staff/24/)
Lecturers	Lecturers of the department Mathematics
Area of study	[MAT-EDU] Mathematics (B.Ed./M.Ed.)
Reference course of study	[MAT-58.105-SG] M.Ed. LaRSP Mathematics (/mhb/FB-MAT/cos-621/)
Lifecycle-State	[NORM] Active

Courses

Choice of the lecture with integrated exercises and seminar **[MAT-22-01-K-6]** (/mhb/courses/MAT-22-01-K-6/) or another lecture with integrated exercises and seminar from the offer of the Department of Mathematics for the development of mathematics in longitudinal and cross sections.

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
4V	MAT-22-01RS-K-6 (/mhb/courses/MAT-22-01RS-K-6/)	WP	-	PL1	8.0	SuSe

- About **[MAT-22-01RS-K-6]**: Title: "Modern Mathematics: Development of Mathematics in Longitudinal and Cross Sections (RS)"; Presence-Time: 56 h; Self-Study: 184 h

Examination achievement PL1

- Form of examination: **combination of talk and written elaboration**
- Examination Frequency: Examination only within the course

The module examination consists of a written paper and an oral presentation (30-90 minutes).

The scope and duration of processing for the written paper and the criteria for determining the grade for the module examination will be announced by the lecturers at the beginning of the course.

Evaluation of grades

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

Contents

Mathematics in longitudinal sections (historical) and/or in cross-sections (in terms of content):

Individual mathematical subject areas are presented in an exemplary manner in their genesis and/or in a compact overview with reference to current developments and practical relevance as a living, further developing science. In particular, the following are clarified:

- the effect of external influences,
- the role of individuals and groups,
- the value of taking wrong paths,
- the connection of current questions/problems and school mathematics.

Competencies / intended learning achievements

The students

- can reproduce the genesis of mathematical concepts;
- understand why a mathematical field has developed as it is today, which external influences have effects and that mathematics is made by people;
- recognise that the axiomatic structure of mathematical theories usually does not correctly reflect their genesis;
- know, for example, a current mathematical field of research, its practical relevance and its relation to school mathematics.

Literature

Literature will be announced in the lecture.

Materials

Exercise material will be provided.

Registration

Registration via the online administration system URM (<https://urm.mathematik.uni-kl.de> (<https://urm.mathematik.uni-kl.de>))

Requirements for attendance (informal)

Depending on the course, additional preknowledge may be required (see the respective course description).

Modules:

- [MAT-10-11-M-2] Fundamentals of Mathematics A: Linear Algebra I and Analysis I (M, 15.0 LP) (/mhb/modules/MAT-10-11-M-2/)
- [MAT-10-12L-M-2] Fundamentals of Mathematics B: Linear Algebra II and Analysis II (M, 9.0 LP) (/mhb/modules/MAT-10-12L-M-2/)

Requirements for attendance (formal)

References to Module / Module Number [MAT-22-00RS-M-5]

Course of Study	Section	Choice/Obligation
[MAT-58.105-SG] M.Ed. LaRSP Mathematics (/mhb/FB-MAT/cos-621/)	Compulsory Modules	[P] Compulsory