

E600 Mathematics

Welcome, Overview and Logistics

Julian Klix | E600 Mathematics

Fall Semester 2026



UNIVERSITÄT
MANNHEIM

Welcome

... to Mannheim



University City of Monnem

- Located between Rhine and Neckar
- Inner city in a grid system
- One of Germany's most diverse cities
- Cradle of transportation
 - Bicycle [Karl Drais]
 - Car [Carl Benz]
- Second largest baroque palace
⇒ Today: [University of Mannheim](#)

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Welcome

... to the University of Mannheim

Congratulations on getting accepted
into the Masters program!

Sebastian Herdtweck Program Manager and Exchange Coordinator M.Sc. Economics
Mail: econgrad@uni-mannheim.de | Office: L 7, 3-5 – Room 405

Welcome

... to E600 Mathematics

- What is E600 Mathematics?
 - Introductory module on mathematical background of economists
 - Course is not mandatory, no exam
- Main course objectives
 - Making you (more) comfortable with formal notation, logic & reasoning
 - Recap and introduce fundamental concepts and mathematical tools
- Instructor: Julian Klix
 - Economist [not mathematician]
 - Fourth year PhD student at CDSE
 - Email: juklix@mail.uni-mannheim.de
 - no scheduled office hours, allotted time for questions before problem sets

Content Overview

Basics	Chapter 0	Logic, Sets, Functions, Limits, Proofs
Linear Algebra	Chapter 1	Vector Spaces, Norms, Set Properties
	Chapter 2	Matrices, Inverses, LSEs, Determinants
Analysis	Chapter 3	Multivariate Functions & Derivatives
	Chapter 4	Optimization: Unconstrained & General
Statistics	Chapter 5	Probability Theory, Random Variables

Course Schedule

	Mon 18	Tue 19	Wed 20	Thu 21	Fri 22
08:30 – 09:15			Intro You're here		Recap 001
09:30 – 11:00			Ch. 0 001		PS 1 001
11:30 – 13:30				Ch. 1 001	Ch. 2 001
14:30 – 16:00				Ch. 1 001	Ch. 2 001

	Mon 25	Tue 26	Wed 27	Thu 28	Fri 29
08:30 – 09:15	Recap S031	Recap S031		Recap S031	Recap S031
09:30 – 11:00	PS 2 S031	PS 3 S031		PS 4 S031	PS 5 S031
11:30 – 13:30	Ch. 3 S031	Ch. 4 S031		Ch. 5 S031	
14:30 – 16:00	Ch. 3 S031	Ch. 4 S031		Ch. 5 S031	

- All lectures in L7, 3 – 5: Lecture Hall 001 (first week), Seminar Room S031 (second week)

Course Schedule

	Mon 24	Tue 25	Wed 26	Thu 27	Fri 28
09:30 – 11:00			Intro You're here		PS 1 001
11:30 – 13:30			Ch. 0 001	Ch. 1 001	Ch. 2 001
14:30 – 16:00				Ch. 1 001	Ch. 2 001

	Mon 31	Tue 1	Wed 2	Thu 3	Fri 4
09:30 – 11:00	PS 2 S031	PS 3 S031		PS 4 S031	PS 5 S031
11:30 – 13:30	Ch. 3 S031	Ch. 4 S031		Ch. 5 S031	
14:30 – 16:00	Ch. 3 S031	Ch. 4 S031		Ch. 5 S031	

- All lectures in L7, 3 – 5: Lecture Hall 001 (first week),
Seminar Room S031 (second week)

Available Material

- Course Material ⇒ **Main focus now!**
 - Slides
 - Problem sets
 - Notes [⇒ annotated slides, published after lectures]
 - In-class exercises [not published beforehand, included in Notes]⇒ Can be found centralized on my [Website](#) [link in mail]

- Additional Online Material
 - ⇒ For additional self-learning and future reference
 - Companion script
 - Additional exercises

Expectations & Goals

- Attendance
 - Voluntary, but “forces” you to spend time with the material
 - Don’t hesitate to **ask questions!**
- Self-Study
 - Review course material
 - Try to solve the problem sets

⇒ No need to hand anything in!
- Mathematical foundation for Master studies
 - Understanding of the commonly used language of Economics
 - Familiarity with the core concepts and tools in use
 - Starting point for acquiring additional knowledge

Getting in touch with your classmates

...and finding study groups

**Your group-link
(e.g. WhatsApp)
could be here**

- Most valuable resource for your studies
- Possibility to try out various groups constellations
- One of Germany's most diverse cities
- Help amongst peers!

⇒ Mail me a link to display

Disclaimer: No university data policy applies!

That's all Folks!

Please take a look at the course material and review any fundamentals you feel unsure about.

✉ julian.klix@uni-mannheim.de

🏢 L7 3-5, Room 3.43

