

Mathematics for Economists

MA ECON BM MATH



Content and learning outcome

Content
The course covers optimization methods as they are used in economic research. Both static and dynamic methods are treated. Existence and comparative statics properties of solutions are covered.
Difference and differential equations are discussed, as mastering these techniques is essential for macroeconomic applications in particular but not exclusively.
Basic concepts in linear algebra are discussed with a view to their applications in other basic and advanced modules.

Learning outcome
Students become familiar with the use of mathematics to study economic problems. The course aims to equip students with the necessary technical toolkit to read economic research independently.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Workload [h]
Lecture	Mathematics for Economists or Mathematics for Economists (Ph.D.)	English	120	4 hours	60
Self-study					165

Prerequisites

obligatory none

recommended

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics (M.Sc.)/Basic Module/Mathematics for Economists: 332110001/332010001/Mathematics for Economists (Ph.D.): 332111001/332011001	obligatory	1 st

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	None	7,5 CP
Types of Assessment	Written exam (graded, 100%)	
Examination language	English	

Course Cycle	Workload	Duration
Winter term <input checked="" type="checkbox"/> Summer term <input type="checkbox"/> Winter and Summer term <input type="checkbox"/>	225 h	1 Term

Module coordination

Teaching person See <https://basis.uni-bonn.de>

Module coordinator Prof. Dr. Dezső Szalay

Institute/Department Department of Economics

Further Information

Basic Modules
You must choose four out of five basic modules (Mathematics for Economists, Finance, Microeconomics, Macroeconomics, Econometrics). Mathematics for Economists is obligatory. The fifth basic module can be elected in the 3rd semester instead of an advanced module.