Mathematics for Economists MA ECON BM MATH			UNIVERSITÄT BONN		
Content and learning outcome					
<b>Content</b> 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 eco-				
Teaching and learning methods					
			Group	Contact	Workload
learning methods	Торіс	instruction	size	time	[h]
Lecture	Mathematics for Economis	sts or English	120	4 hours	60
	Mathematics for Econom	ists			
	(Ph.D.)				
Self-study					165
Prerequisites					
obligatory none					
recommended					
Degree program allocation					
Degree program anoca			1		
Study Program/Stu	udy Field/Module Number/Le	ecture Number	obligato electiv	ry/ e	Semester
Study Program/Stu Economics (M.Sc.)	udy Field/Module Number/Le	ecture Number or Economists:	obligato electiv	ry/ e	Semester
Study Program/Stu Economics (M.Sc.), 332110001/33201	udy Field/Module Number/Le /Basic Module/Mathematics f 10001/Mathematics for Econo	or Economists: pmists (Ph.D.):	obligato electiv obligato	ry/ e	Semester 1 <sup>st</sup>
Study Program/Stu Economics (M.Sc.), 332110001/33201	udy Field/Module Number/Le /Basic Module/Mathematics f L0001/Mathematics for Econo 332111001/332011001	ecture Number or Economists: omists (Ph.D.):	obligato electiv obligato	ry/ e	Semester 1 <sup>st</sup>
Study Program/Stu Economics (M.Sc.)/ 332110001/33201	Ady Field/Module Number/Le Basic Module/Mathematics f 10001/Mathematics for Econo 332111001/332011001	ecture Number or Economists: omists (Ph.D.):	obligato electiv obligato	ry/ e	Semester 1 <sup>st</sup>
Study Program/Stu Economics (M.Sc.), 332110001/33201 Requirements for the a Prerequisites for	udy Field/Module Number/Le /Basic Module/Mathematics f L0001/Mathematics for Econo 332111001/332011001 warding of credit points (E	ecture Number or Economists: omists (Ph.D.):	obligato electiv obligato	ry/ e	Semester 1 <sup>st</sup> Credits
Study Program/Stu Economics (M.Sc.)/ 332110001/33201 Requirements for the a Prerequisites for participation	Ady Field/Module Number/Le /Basic Module/Mathematics f L0001/Mathematics for Econo 332111001/332011001 warding of credit points (E None	ecture Number or Economists: omists (Ph.D.): CCTS)	obligato electiv obligato	ry/ e	Semester 1 <sup>st</sup> Credits
Study Program/Stu Economics (M.Sc.), 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment	Ady Field/Module Number/Le /Basic Module/Mathematics for 10001/Mathematics for Econo 332111001/332011001 warding of credit points (E None Written exam (graded, 1009	ecture Number or Economists: omists (Ph.D.): ECTS)	obligato electiv obligato	ry/ e	Semester 1 <sup>st</sup> Credits 7,5 CP
Study Program/Stu Economics (M.Sc.)/ 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language	udy Field/Module Number/Le /Basic Module/Mathematics f 10001/Mathematics for Econo 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English	ecture Number or Economists: omists (Ph.D.): CCTS)	obligato electiv obligato	ry/ e	Semester 1 <sup>st</sup> Credits 7,5 CP
Study Program/Stu Economics (M.Sc.), 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle	Ady Field/Module Number/Le /Basic Module/Mathematics f 10001/Mathematics for Econo 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English	ecture Number or Economists: omists (Ph.D.): cCTS) 6) Workload	obligato electiv obligato	ry/ e	Semester 1 <sup>st</sup> Credits 7,5 CP
Study Program/Stu Economics (M.Sc.), 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term	Ady Field/Module Number/Le /Basic Module/Mathematics for 10001/Mathematics for Econo 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English Winter and	ecture Number or Economists: omists (Ph.D.): CTS)	obligato electiv obligato	ry/ e ory Duratio	Semester 1 <sup>st</sup> Credits 7,5 CP
Study Program/Stu Economics (M.Sc.)/ 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term Summer term	Ady Field/Module Number/Le /Basic Module/Mathematics f L0001/Mathematics for Econor 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English Winter and Summer term	ecture Number or Economists: omists (Ph.D.): cCTS) 6) Workload 225 h	obligato electiv obligato	ry/ e ory Duratio	Semester 1 <sup>st</sup> Credits 7,5 CP
Study Program/Stu Economics (M.Sc.), 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term Summer term Internation	Ady Field/Module Number/Le /Basic Module/Mathematics for Econor 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English Winter and Summer term	ecture Number or Economists: omists (Ph.D.): cCTS) 6) Workload 225 h	obligato electiv obligato	ry/ e ory Duratio 1 Term	Semester 1 <sup>st</sup> Credits 7,5 CP n
Study Program/Stu Economics (M.Sc.)/ 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term Summer term I Module coordination Teaching person	Judy Field/Module Number/Le /Basic Module/Mathematics f L0001/Mathematics for Econor 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English Winter and Summer term	ecture Number or Economists: omists (Ph.D.): cCTS) 6) Workload 225 h	obligato electiv obligato	ry/ e ory Duratio 1 Term	Semester 1 <sup>st</sup> Credits 7,5 CP n
Study Program/Stu Economics (M.Sc.)/ 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term Summer term Module coordination Teaching person Module coordinator	Ady Field/Module Number/Le /Basic Module/Mathematics f 10001/Mathematics for Econor 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English Winter and Summer term See https://basis.uni-bonn.c Prof. Dr. Dezsö Szalay	ecture Number or Economists: omists (Ph.D.): cCTS) 6) Workload 225 h	obligato electiv obligato	ry/ e ory Duratio 1 Term	Semester 1 <sup>st</sup> Credits 7,5 CP n
Study Program/Stu Economics (M.Sc.), 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term Summer term Summer term Summer term Summer term Summer term Institute/Department	Ady Field/Module Number/Le /Basic Module/Mathematics for Econor 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English Winter and Summer term See https://basis.uni-bonn.co Prof. Dr. Dezsö Szalay Department of Economics	ecture Number or Economists: omists (Ph.D.): CTS) 6) Workload 225 h	obligato electiv obligato	ry/ e ory Duratio	Semester 1 <sup>st</sup> Credits 7,5 CP n
Study Program/Stu Economics (M.Sc.)/ 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term Summer term Summer term Module coordination Teaching person Module coordinator Institute/Department Further Information	Ady Field/Module Number/Le /Basic Module/Mathematics f 10001/Mathematics for Econor 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English Winter and Summer term □ See https://basis.uni-bonn.or Prof. Dr. Dezsö Szalay Department of Economics	ecture Number or Economists: omists (Ph.D.): cCTS) 6) Workload 225 h	obligato electiv obligato	ry/ e ory Duratio 1 Term	Semester
Study Program/Stu Economics (M.Sc.), 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term Summer term Institute for the second Module coordination Teaching person Module coordinator Institute/Department Further Information Basic Modules	Ady Field/Module Number/Le /Basic Module/Mathematics for Econor 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English Winter and Summer term See https://basis.uni-bonn.c Prof. Dr. Dezsö Szalay Department of Economics You must choose four out or	ecture Number or Economists: omists (Ph.D.): cCTS) 6) Workload 225 h de	obligato electiv obligato	ry/ e ory Duratio 1 Term or Econon	Semester          1st         Credits         7,5 CP         n
Study Program/Stu Economics (M.Sc.), 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term Summer term Summer term Summer term Summer term	Jdy Field/Module Number/Le         //Basic Module/Mathematics for Econol         //Basic Module/Mathematics for Econol         332111001/332011001         warding of credit points (E         None         Written exam (graded, 1009         English         Winter and         Summer term         See https://basis.uni-bonn.c         Prof. Dr. Dezsö Szalay         Department of Economics         You must choose four out of         nance, Microeconomics, Mate	ecture Number or Economists: omists (Ph.D.): CTS) 6) Workload 225 h de	obligato electiv obligato	ry/ e ory Duratio 1 Term or Econom hematics f	Semester          1st         Credits         7,5 CP         n         credits         r,5 CP         n         credits         credits         credits         for credits
Study Program/Stu Economics (M.Sc.)/ 332110001/33201 Requirements for the a Prerequisites for participation Types of Assessment Examination language Course Cycle Winter term Summer term Summer term Module coordination Teaching person Module coordinator Institute/Department Further Information Basic Modules	Ady Field/Module Number/Le /Basic Module/Mathematics f 10001/Mathematics for Econor 332111001/332011001 warding of credit points (E None Written exam (graded, 1009 English Winter and Summer term See https://basis.uni-bonn.ce Prof. Dr. Dezsö Szalay Department of Economics You must choose four out of nance, Microeconomics, Ma mists is obligatory. The fifth	ecture Number or Economists: omists (Ph.D.): (CTS) (6) Workload 225 h de f five basic modules (M icroeconomics, Econom basic module can be el	obligato electiv obligato	ry/ e ory Duratio 1 Term or Econom hematics f 3 <sup>rd</sup> semes	Semester