UNIVERSITÄT BONN

University of Bonn
Faculty of Law and Economics
Department of Economics

Course Catalogue

Master of Science

Economics (M.Sc.)

Winter Semester 2022/2023

Contents

1 Master of Science in Economics

1.1 Aims of the Program

The program “Master of Science in Economics” at the University of Bonn is comprehensive research-oriented program offered in English. The four semester program provides students with the skills needed to succeed in an increasingly international job market and prepares them for challenging jobs in the public sector (ministries, central banks) and the private sector (banks, consulting firms, large industrial companies) as well as for jobs at universities, research institutions and international institutions. The Master program covers all areas of economics and provides advanced mathematical, statistical, and econometric knowledge. The program familiarizes graduate students with the methodological framework of current research and complex economic models and enables them to discuss the relevancy and limits of economic theories. Students graduating from the M. Sc. program in Economics will be qualified for a professional career as well as for a Ph.D. program.

1.2 Structure of the Program and Workload

The Master of Science in Economics is a two-year program consisting of basic modules, advanced modules, a research module and the Master thesis. During their first semester, students choose four out of five basic modules, thus earning 30 credit points. The basic modules provide them with an in-depth understanding of the field’s foundations and prepare them for the advanced modules. The following basic modules are offered: Mathematics for Economists (mandatory), Microeconomics, Macroeconomics, Finance, and Econometrics. In the second and third semester, students determine their individual study profile by selecting advanced module covering a minimum of two and a maximum of four areas of Economics. These advanced modules focus on current topics in economic research and provide students with a profound understanding of the conceptual and methodological assumptions of a variety of approaches. In the third semester, students also take a research module, which is taught as a seminar and helps them to further improve their academic and analytical skills while addressing recent topics of the respective study field. They learn to define research topics, to formulate specific research questions and to develop a research approach to investigate the project’s topic. Advanced modules and the research module are offered in the following fields: Microeconomic Theory, Macroeconomics and Public Economics, Management and Applied Microeconomics, Financial Economics, Econometrics and Statistics, and Economic Research. Students need to acquire a total of 90 credit points from basic and advanced modules (including the research module). They complete their Master degree by writing their Master thesis in the fourth semester, thus earning the remaining 30 credit points.

Please find further information about the master program in Economics on our websites Econ Uni Bonn.

1.3 Course Plan

Master of Science (M.Sc.)

Economics

Examination Regulations from 27 September 2017
Valid from Winter Semester 2017/18

Study Course Economics				
Optional German Class / Orientation Session				
1st Sem Winter	Basic Module Mathematics	Basic Module (Study Field 1)	Basic Module (Study Field 2)	Basic Module (Study Field 3)
30 CP	7,5 CP	7,5 CP	7,5 CP	7,5 CP
2nd Sem Summer	Advanced Module (Study Field optional)	Advanced Module (Study Field 1)	Advanced Module (Study Field 2)	Advanced Module (Study Field optional)
30 CP	7,5 CP	7,5 CP	7,5 CP	7,5 CP
3rd Sem Winter	Research Module (Study Field 1)		Advanced Module (Study Field optional)	Advanced Module (Study Field optional) or Basic Module
30 CP	15 CP		7,5 CP	7,5 CP
4th Sem Summer	Master Thesis			
30 CP	30 CP			
M.Sc. Economics 120 CP				
Legend:				
Basic Modules	Advanced Modules	Research Module		

October 2017

2 Course Advice

2.1 Course Offer

Students acquire 7.5 ECTS for all modules except for the research module and the master thesis, which are weighted 15 ECTS and 30 ECTS respectively. All basic modules and the research module are offered in winter semesters only, all advanced modules in a yearly cycle. Information on the content of all modules offered in the master program is available on the pages of the Department of Economics through the module descriptions which also indicate the semester in which a course is offered and the type of exam for each module. Information on the courses offered in any given semester is available on the online platform BASIS which also allows students to register for courses and exams. Generally, no course registration is required for basic and advanced modules, the only exception is the research module as it is taught as a seminar with a limited number of participants.

2.2 Examination Registration

At the end of every semester, students have to take written or oral examinations to complete their courses. Examinations can be taken during two examination periods; the first usually begins shortly after the end of the lecture period, the second usually takes place during the last two weeks of the semester. Students can decide in which examination period they want to write their exams, the exam registration takes place via BASIS.

2.3 E-Learning and eCampus

eCampus is the online platform of the University of Bonn. It acts as an online interface between lecturers and students. This is where the lecturers upload any necessary course material like lecture slides, problem sets and mock exams.

2.4 Study Advisors

Master program, international students (outgoing and incoming)

Sabine Hübner-Monien, Ph.D.
E-Mail: master.econ@uni-bonn.de
Tel.: 0228/73-94 50
Office Hours: https://www.econ.uni-bonn.de/de/studium/service/ansprechpartner

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3 Imprint

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4 Module Descriptions

Econometrics

MA ECON BM ECONOM

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Content and learning outcome

Content	This course is to provide a thorough introduction to classic econometric methods including linear and nonlinear regression, (generalized) method of moments, or maximum likelihood in a cross-section and/or time series context. Theoretical analysis as well as practical implementation of these methods is part of this course as well.
Learning outcome	This course is primarily conceived to acquire a firm understanding of why certain econometric methods work and provide possible remedies for departures from the standard modeling assumptions. An important goal is to show the benefits of combining economic theory, statistical methods to analyze empirical problems in economics.

Teaching and learning methods

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

Prerequisites

obligatory	none
recommended	none

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Basic Module / 332110005 / 332010005; Econometrics (Ph.D.) 332111005/332011005	Elective	1st/ 3rd
Export* / 332191005 / 332010005		

Requirements for the awarding of credit points (ECTS)

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

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	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.

** export into other study programs is only possible if contract between faculties exists*

Finance

MA ECON BM FINANCE

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Content and learning outcome

Content	The course provides a rigorous introduction into the theory of finance and its implications for corporate financial management. It covers the main areas of modern finance, including the theory of investments under certainty and uncertainty, the pricing of assets and derivatives, and an introduction into corporate financial policy.
Learning outcome	The aim of this course is to provide students with an understanding of the most important theories in financial economics. It enables students to read and understand original research literature, to take a stand on current issues in finance, and it lays the foundation for specialized courses in finance.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Finance	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 / 332110004 / 332010004	Elective	1st/ 3rd
Export* / 332191004 / 332010004		

Requirements for the awarding of credit points (ECTS)

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

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics

Further Information

Literature	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.

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Macroeconomics

MA ECON BM MACRO

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Content and learning outcome

Content	This course provides an introduction into the current state of macroeconomic theory for graduate students. It is divided in three parts: growth theory, real business cycle theory, and financial macroeconomics. The first part deals with the question what makes economies grow in the long run, while in the last two parts dynamic stochastic equilibrium models are developed and solved.
Learning outcome	The main goal of this course is to acquaint students with the methodological framework underlying current research and academic debates in dynamic macroeconomics. This will provide them with the background required to understand current research literature and a rigorous foundation for the discussion of macroeconomic policies.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Macroeconomics or Macroeconomics (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 / 332110003 / 332010003; Macroecomics (Ph.D.): 332111003/332022018	Elective	1st/ 3rd
Export* / 332191005 / 332010003		

Requirements for the awarding of credit points (ECTS)

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

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Christian Bayer
Institute/Department	Department of Economics

Further Information

Literature	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.

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Mathematics for Economists

MA ECON BM MATH

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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	Work load [h]
Lecture	Mathematics for Economists or Mathematics for Economists (Ph.D.)	English	120	4 hours	60
Self-study					

Prerequisites

obligatory	none
recommended	

Degree program allocation

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

Requirements for the awarding of credit points (ECTS)

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

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	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.

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Microeconomics

MA ECON BM MICRO

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Content and learning outcome

Content	The course covers the core topics in microeconomic theory. It includes the fundamentals of individual decision making, game theory, and general equilibrium theory. The lecture provides a rigorous foundation for common modelling techniques and solutions concepts, and gives an introduction to their application in fields like information economics.
Learning outcome	The course aims to expose the students to the basic paradigms of modern microeconomics, on an advanced formal level. Another important goal is the exposure to a variety of modelling techniques that will be often used in subsequent courses.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Microeconomics or Microeconomics (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 / 332110002 / 332010002; Microeconomics (Ph.D.): 332111002/332011002	Elective	1st/ 3rd
Export* / 332191005 / 332010002		

Requirements for the awarding of credit points (ECTS)

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

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	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.

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Algorithmic Economics

MA ECON AM MIT ALGOECON

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Content and learning outcome

Content	Algorithmic economics is a vibrant interdisciplinary area at the intersection of economics and computer science. It brings computational thinking to traditional economic problems, enabling economic analysis to deal with the challenges of a digital economy. Understanding computational constraints is vital for designing mechanisms from elections to auctions and provides new insights into why practical institutions deviate from theoretical predictions. This course introduces students to algorithmic economics. It provides the necessary background from theoretical computer science and demonstrates its usefulness by applying it to game theory, mechanism design, social choice, and fair division
Learning outcome	Students of this course will get acquainted with basic concepts from theoretical computer science. They will learn to recognize algorithmic challenges in familiar economic problems and to analyze and compare the practical limitations of traditional economic approaches. Moreover, they can apply algorithmic thinking to identify computationally tractable solutions.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Algorithmic Economics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Microeconomic Theory / 332121013 / 332021013	Elective	3rd
Export* / 332192113 / 332021013		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Asset Pricing

MA AM ASSPRIC

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Content and learning outcome

Content	This course introduces students to modern asset pricing, portfolio theory, and derivatives pricing in static and continuous-time dynamic models. The main covered topics include (i) no-arbitrage theory and equivalent martingale measures; applications to (ii) interest rate and fixed income securities; (iii) derivatives (forward, futures, options, swaps and, - time permitting - CDS); (iv) dynamic mean-variance analysis and ICAPM (also time permitting).
Learning outcome	Students acquire a solid theoretical understanding of the no-arbitrage theory and of its application for pricing and evaluating the risk of basic and derivative financial products. This content of this course enables them to critical approach more advanced models and to decompose complex instruments into their primitive components.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Asset Pricing	English	30	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. / Financial Economics / 332124031 / 332024031	Elective	3rd
Export* / 332192431 / 332024031		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle

				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics

Further Information

Literature	Björk, T. (2009) Arbitrage theory in continuous time. Oxford University press Hull, J. (2009) Options, futures and other derivatives“ Prentice Hall Back, K. (2010) Asset Pricing and Portfolio Choice Theory, Oxford University Press

** export into other study programs is only possible if contract between faculties exists*

Banking and Securitization

MA ECON AM FIE BANKSEC

UNIVERSITÄT BONN

Content and learning outcome

Content	This course provides an overview of current topics in banking and securitization. It is an applied course that builds on the basic knowledge in financial economics. The course is organized around methodologies frequently employed in this literature, and will be enriched by frequent references to applications. The focus is on topical research related to the financial crises of 2008. In particular, papers analyzing the incentives problems related to the securitization process are discussed.
Learning outcome	This course builds on the current literature on banking and securitization with a focus on the financial crisis of the year 2008. The students will be required to thoroughly read the research papers discussed in class. Further, students are required to present an unpublished research paper and write a referee report on this paper.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Banking and Securitization	English	30	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. / Economic Research;Financial Economics / 332124029 / 332024029	Elective	2nd
Export* / 332192429 / 332024029		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

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Behavioral Economics

MA ECON AM MAM BEHECON

UNIVERSITÄT BONN

Content and learning outcome

Content	This course presents psychological and experimental evidence of departures from perfect rationality, self interest, and other assumptions of more traditional economic studies. The course then explores different ways of how departures from standard assumptions can be captured by formal models. It also discusses the implications of these findings for positive and normative predictions in various institutional settings.
Learning outcome	The course has three aims: (i) making students familiar with the lively debate in experimental and behavioral economics; (ii) providing them with basic formal models of decision making that account for psychological determinants of individual behaviour, (iii) enabling them to apply those models to applied economic questions.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Behavioral Economics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Management and Applied Microeconomics / 332123019 / 332023019	Elective	2nd
Export* / 332192319 / 332023019		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

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Computational Statistics

MA ECON AM ECS COMPSTAT

UNIVERSITÄT BONN

Content and learning outcome

Content	The course explains ideas and methodological issues of computationally intensive statistical methods. There will be a special emphasis on algorithmic and numerical aspects of practical implementation.
Learning outcome	Successful students are able to solve methodological, numerical and algorithmic problems encountered in empirical work.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Computational Statistics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Econometrics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Econometrics and Statistics / 332125033 / 332025033	Elective	2nd
Export* / 332192533 / 332025033		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	Literature: Literature will be announced in class.

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Corporate Finance

MA ECON AM FIE CORPFIN

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Content and learning outcome

Content	During the course, we will do three things: go through some parts of the Tirole book on the theory of corporate finance, then (as an exercise) build own variations of the discussed models. Finally, see how the basic theory is applied in current financial theory. That way, the course gives and overview over corporate finance theory, but also increases the students' skills to write up own ideas. This will be helpful for the master thesis later on.
Learning outcome	Students know about the theory of corporate finance (first 11 chapters of the Jean Tirole book); they have an advanced knowledge about the financial structure of firms, liquidity structure, corporate governance, mergers and acquisitions; they can construct own theory models; they can read and assess current theoretical articles in corporate finance.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Corporate Finance	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Finance

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research;Financial Economics / 332124027 / 332024027	Elective	3rd
Export* / 332192427 / 332024027		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics

Further Information

Literature	Literature: • Jean Tirole, Theory of Corporate Finance (2006) • plus a number of current research papers

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Decision Theory

MA ECON AM MT DECSION

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Content and learning outcome

Content	This course provides an introduction to decision theory. The focus is on decision-making under risk and uncertainty. Covered topics include the foundations of choice theory, preference representations, models of expected and subjective expected utility, and ambiguity aversion. We study axiomatic foundations and discuss their economic relevance.
Learning outcome	Students of this course get acquainted with a basic toolkit in decision theory. They understand various classic models on a formal level and can recognize, critically evaluate, and apply those in other areas of economics.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Decision Theory	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Microeconomic Theory / 332121009 / 332021009	Elective	2nd
Export* / 332192109 / 332021009		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Digital Finance

MA ECON AM FIE DIGITFIN

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Content and learning outcome

Content	This course analyses (digital) money, banks and payments. First, the course studies recent innovations in the realm of digital currencies and payments. Second, monetary policy in the presence of multiple currencies is discussed. Third, the course analyses bank deposits as means of payments, central bank digital currencies (CBDC), the real effects of bank disintermediation, and currencies issued by firms.
Learning outcome	Students will be able to discuss the economic limitations of blockchain-based currencies. Students will also be familiar with models of money as medium of exchange. The course leads students to the research frontier on digital currencies and their economic consequences.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Digital Finance	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	The basic modules Macroeconomics and Microeconomics are strongly recommended.

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Financial Economics / 332124034 / 332024034	Elective	3rd
Export* / 332192434 / 332024034		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Dynamic Macroeconomics

MA ECON AM MPE DYNMAC

UNIVERSITÄT BONN

Content and learning outcome

Content	The course studies first revisits basic algorithms to solve single agent dynamic programming problems, then discusses possibilities to improve on these algorithms, such as perturbation and projection methods. These techniques are applied to study the business cycle characteristics of model economies. Then algorithms are studied to solve recursive general equilibrium models with heterogeneous agents, such as Aiyagari's (1994) or Krussell and Smith's (1998) model.
Learning outcome	The course has two aims: First and foremost, it aims at acquainting students with the numerical techniques needed to understand modern macroeconomic analysis involving the solution of dynamic programming problems. Second, it repeats in an applied manner concepts and results studied theoretically in the macroeconomics basic course: e.g. business cycle theory, savings decisions, general equilibrium with imperfect capital markets, heterogeneous agent economies.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Dynamic Macroeconomics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	A basic understanding of numerical programming and MATLAB as programming language is helpful but not required.

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research;Macroeconomics and Public Economics / 332122007 / 332022007	Elective	2nd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination	
Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Christian Bayer
Institute/Department	Department of Economics
Further Information	
Literature	Literature: Students having already passed exams in “Macroeconomics II: Dynamic Macroeconomics” cannot take exams in this module. Primary readings are: • Burkhard und Alfred Maußner, Dynamic General Equilibrium Modelling, Computational Methods and Applications, 2. Edition, Springer: Berlin 2008 • Jerome Adda and Russell W. Cooper, Dynamic Economics: Quantitative Methods and Applications, MIT Press, Cambridge MA, 2003.

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Dynamic Methods and Applications

MA ECON AM FIE DYNMAPP

UNIVERSITÄT BONN

Content and learning outcome

Content	The course introduces the dynamic programming approach in discrete time, covering its mathematical underpinnings as well as applications to problems in microeconomics, macroeconomics and finance.
Learning outcome	Students get acquainted with one of the most important techniques for forward-looking decision making, the method of dynamic programming, and with its manifold applications in economics.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Dynamic Methods and Applications	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Knowledge of the contents of the module “Mathematics for Economists”

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research;Financial Economics;Macroeconomics and Public Economics;Management and Applied Microeconomics;Microeconomic Theory / 332121011 / 332021011	Elective	2nd
Export* / 332192111 / 332021011		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle

				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

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Econometric Theory

MA ECON AM ECS ECONTHEO

UNIVERSITÄT BONN

Content and learning outcome

Content	The course deals with theoretical analysis of classical parametric estimators such as least squares, maximum likelihood or GMM estimators. Derivation of results for estimation and inference theory including consistency and asymptotic normality results.
Learning outcome	Students acquire a firm understanding of the fundamental concepts of econometric theory. They should be able to understand and apply standard proof techniques.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Econometric Theory	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Econometrics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Econometrics and Statistics;Economic Research / 332125028 / 332025028	Elective	3rd
Export* / 332192528 / 332025028		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

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Econometrics II

MA ECON AM ECS ECONOMII

UNIVERSITÄT BONN

Content and learning outcome

Content	The course introduces students to advanced econometric methods, e.g. non- or semi-parametric regression, bootstrap techniques, computationally intensive methods in a cross-section and/or time series context.
Learning outcome	Students acquire an expert understanding of advanced econometric procedures and of underlying theoretical reasoning. Using the advanced methods learned they should be able to solve methodological problems encountered in empirical work.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Econometrics II	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	Basic Module Econometrics
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Econometrics and Statistics;Economic Research / 332125036 / 332025036	Elective	2nd
Export* / 332192536 / 332025036		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	

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Economics and Psychology

MA ECON AM MAM ECOPSY

UNIVERSITÄT BONN

Content and learning outcome

Content	In this course, we discuss psychological foundations of economic behavior and their implications. Providing the economic model with a more realistic foundation is important not only from a general research perspective, but also for improved predictions and policy recommendations. We will discuss empirical regularities from experiments and field studies that violate the predictions of the standard model, review models that integrate the underlying intuitions into a formal economic model and assess the predictions of this new model. The course has a heavy emphasis on testing the predictions of the model in the field and to assess the quantitative importance of the behavioural features.
Learning outcome	Students will learn how to test key implications of the standard model of economics in a variety of settings (intertemporal choice, choice under uncertainty, strategic situations). They will learn how to interpret deviations from the predictions of the standard economic model and how these can be integrated into theory. They will learn how to test these predictions in a variety of settings.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Economics and Psychology	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research;Management and Applied Microeconomics / 332123022 / 332023022	Elective	3rd
Export* / 332192322 / 332023022		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics

Further Information

Literature	Literature: There is no textbook for this course. Reading will be based exclusively on research papers.

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Economics of Contracts and Information

MA ECON AM MIT ECOCONIN

UNIVERSITÄT BONN

Content and learning outcome

Content	Markets with asymmetric information, Signalling, Screening, Contracting under moral hazard and asymmetric information, Non-linear pricing, auctions.
Learning outcome	Students study the impact of asymmetric information on market outcomes. They learn to apply game theoretic tools to understand contracts and institutions as optimal outcomes under asymmetric information.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Economics of Contract and Information	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Microeconomic Theory / 332121008 / 332021008	Elective	2nd
Export* / 332192108 / 332021008		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

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Effective Programming Practices for Economists

MA ECON AM ECS EFFPROPE

UNIVERSITÄT BONN

Content and learning outcome

Content	This course introduces students to software development methods that will substantially reduce their time spent programming while at the same time making their programs more dependable and their results reproducible without extra effort. The course draws extensively on some simple techniques that are the backbone of modern software development, which most economists are simply not aware of. It shows the usefulness of these techniques for a wide variety of economic and econometric applications by means of hands on examples.
Learning outcome	Students acquire the programming and software development skills required to manage complex research projects and to make the results reproducible.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Effective Programming Practices for Economists	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Econometrics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Econometrics and Statistics;Economic Research;Management and Applied Microeconomics / 332123026 / 332023026	Elective	2nd
Export* / 332192326 / 332023026		

Requirements for the awarding of credit points (ECTS)		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	

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Empirical Banking and Finance

MA ECON AM FIE EMPBF

UNIVERSITÄT BONN

Content and learning outcome

Content	The course consists of lectures, tutorials, and student presentations. During the lectures, students are introduced to commonly used (micro-) econometric methods: finance and growth in the cross-section, panel methods/ fixed effects, differences-in-differences estimation, instrumental variables estimation, the method by Rajan and Zingales (1998). The goal is to get an intuitive grasp of these methods and to understand how they help to identify causal effects. During the tutorials, students learn how to implement the methods using the software Stata. Student presentations are integrated into the lectures. Each student (or team of 2-3 students) receives an empirical journal article, which is to be presented and discussed in class (research question, identification strategy, interpretation of empirical results, critical assessment of the paper, etc.).
Learning outcome	Students will learn the econometric methods used in the area of banking and finance and how to critically assess empirical research articles. The course's main focus is on the research question whether bank activities and financial development, such as the size of the banking market, matter for the real economy.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Empirical Banking and Finance	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Knowledge of the contents of the module "Mathematics for Economists"

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research;Financial Economics / 332124030 / 332024030	Elective	2nd
Export* / 332192430 / 332024030		

Requirements for the awarding of credit points (ECTS)		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination	
Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics
Further Information	
Literature	Literature: Main textbook: "Introductory Econometrics – A Modern Approach" by Jeffrey M. Wooldridge. Further, the course is based on several journal articles in the area of banking and finance which will be provided in due course.

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Game Theory

MA ECON AM MIT GAMETHEO

UNIVERSITÄT BONN

Content and learning outcome

Content	The course will cover recent topics and advances in game theory. It will focus on a topical theme in game theory and will cover recent development in this field. The course will emphasize the relevance to economic problems and the methods and techniques used in the current literature.
Learning outcome	The successful student will learn to read advanced text, understand and critically question the modelling used in recent game theoretic papers, and will be able to follow and apply the techniques and the methods used in these papers.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Game Theory	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Microeconomic Theory / 332121003 / 332021003	Elective	2nd
Export* / 332192103 / 332021003		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

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Growth and Development Economics

MA ECON AM MPE GRODEC

UNIVERSITÄT BONN

Content and learning outcome

Content	This module starts with a broad overview about Economic Growth by documenting the staggering differences between (and within) countries and covering some of the theories that have been proposed to explain them. Further on the module focusses on smaller (but equally important) questions about nutrition, health, education and population. Methods used in modern empirical research will be explained. Lastly, some of the recent advances in the novel field of historical development will be presented.
Learning outcome	This course serves as an advanced introduction to the fields of economic growth, development economics and economic history. The idea is that students learn about the fundamental paradigms and schools of thought of economics development and that they are able to think critically and proactively about issues of economic growth and development.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Growth and Development Economics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	A good working knowledge of calculus, statistics and econometrics is recommended.

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Macroeconomics and Public Economics / 332122020 / 332022020	Elective	2nd
Export* / 332192220 / 332022020		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Christian Bayer
Institute/Department	Department of Economics

Further Information

Literature	Literature: • Ray, Debraj. Development Economics. Princeton University Press, 1998. (DE) • Banerjee, Abhijit and Esther Duflo. Poor Economics: A radical rethinking of the way to fight global poverty. Public Affairs, 2011. (PE) • More advanced and specific articles that serve as complementary reading will be posted as we go along.

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Industrial Organization

MA ECON AM MAM INDORG

UNIVERSITÄT BONN

Content and learning outcome

Content	The first part of the course presents models in industrial organization (IO) that aim at explaining firm behaviour in different strategic environments. Within the context of static and dynamic oligopoly models, standard tools of theoretical IO are taught and some key theoretical results are confronted with empirical evidence. The second part of the course will focus on selected topics such as mergers, collusion or predatory behaviour.
Learning outcome	Students become acquainted with basic tools and selected topics in modern industrial organization. In particular, they learn how to (i) apply key theoretical ideas and important formal techniques to selected questions, (ii) link theory to empirical work, and (iii) relate theoretical results to policy issues.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Industrial Organization	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Management and Applied Microeconomics / 332123016 / 332023016	Elective	2nd
Export* / 332192316 / 332023016		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

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Information and Dynamic Incentives

MA ECON AM MIT INFODIN

UNIVERSITÄT BONN

Content and learning outcome

Content	Dynamic models of signaling and communication; models of repeated contracting under moral hazard and adverse selection with and without commitment.
Learning outcome	Students study the impact of asymmetric information on market and contracting outcomes in dynamic environments. They learn to apply game theoretic tools to understand contracts and institutions as optimal outcomes under asymmetric information.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Information and Dynamic Incentives	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Microeconomic Theory / 332121012 / 332021012	Elective	3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course

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Institutional Economics

MA ECON AM MAM INSTECON

UNIVERSITÄT BONN

Content and learning outcome

Content	In this course, the methods of contract theory are applied to the economic analysis of institutions. In this context, the course covers the analysis of moral hazard and adverse selection models as well as hold-up problems and the optimal allocation of property rights.
Learning outcome	The students learn to analyze formal institutions from an economic point of view, taking the prevailing information structures into account. In particular, they investigate strategic interaction and they compare incentive structures arising from different institutions.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Institutional Economics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	The basic module Microeconomics is strongly recommended.

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Management and Applied Microeconomics / 332123018 / 332023018	Elective	2nd
Export* / 332192318 / 332023018		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

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International Economics and Finance

MA ECON AM MPE INTECON

UNIVERSITÄT BONN

Content and learning outcome

Content	International macroeconomics and finance is concerned with international linkages through trade in goods/services and through financial markets. This course aims at providing the basis for understanding the role of shocks and frictions in shaping fluctuations in the open economy. And to understand policy options. Towards this end, the course discusses stylized facts of fluctuations in open economies. It, then, introduces the workhorse models and how different shocks and frictions may shape the business cycle in the open economy. With nominal rigidities, there will be a role to the monetary policy regime and the nominal exchange rate. This allows discussing the effect of the monetary and fiscal policy mix for fluctuations.
Learning outcome	Students acquire skills for solving dynamic optimization problems as they frequently arise in international economics and finance. In addition, applications to topical issues in international economics and finance are discussed. Students also learn to solve numerical and/or empirical exercises using standard software packages.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	International Economics and Finance	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Macroeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Macroeconomics and Public Economics / 332122010 / 332022010	Elective	2nd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Christian Bayer
Institute/Department	Department of Economics

Further Information

Literature	Literature: The lecture draws on material covered in M. Obstfeld and K. Rogoff (1996): Foundations of International Macroeconomics and in Schmitt-Grohé and Uribe (2017): open economy macroeconomics; or comparable sources.

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Labor Economics

MA ECON AM MAM LABECON

UNIVERSITÄT BONN

Content and learning outcome

Content	The course sheds light on the employment decisions from the perspective of the firm and the worker. Examples of topics include neoclassical model of labor supply model, labor demand, wages and employment determination with reference to labor market institutions (e.g. minimum wages, unemployment insurance, employment protection), search and matching theory, human capital theory, and the design of incentive schemes. There will be an emphasis on the interaction between theoretical and empirical modeling. Insights from state-of-the art empirical work will be discussed alongside theory.
Learning outcome	Students will gain a solid knowledge of labor economics and acquire an up-to-date understanding of the functioning of labor markets. Students will become competent to critically evaluate economic theory in light of empirical evidence.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Labor Economics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Macroeconomics and Public Economics;Management and Applied Microeconomics / 332123027 / 332023027	Elective	2nd
Export* / 332192327 / 332023027		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

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Macroeconomics II

MA ECON AM MPE MACROII

UNIVERSITÄT BONN

Content and learning outcome

Content	The plan is to cover consumption-saving theory in standard incomplete markets models and in models with endogenously incomplete markets. The course will cover both infinite horizon and overlapping generation models. In addition, the course covers investment decisions of firms and topics on labor markets and income dynamics.
Learning outcome	The course aims at providing students with the state-of-the-art methods to answer questions from different fields in macroeconomics. The course will introduce several widely used modelling frameworks and introduces students to the analysis of these frameworks. The goal is that students at the end of the course can perform independent analysis of macroeconomic questions using the theoretical frameworks and methods from the course.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Macroeconomics II	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	Basic Module Macroeconomics
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research;Macroeconomics and Public Economics / 332122018 / 332022018	Elective	2nd
Export* / 332192218 / 332022018		

Requirements for the awarding of credit points (ECTS)

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

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Christian Bayer
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Managerial Accounting

MA ECON AM MAM MANACC

UNIVERSITÄT BONN

Content and learning outcome

Content	This course analyzes the use of information in firms. Special emphasis is placed on the coordination of decisions in decentralized organizations. The course covers information systems as well as instruments of coordination. Theoretical concepts are derived and then used to evaluate the potential of management control systems.
Learning outcome	The students learn the economic effects arising from the use of information systems in firms. It enables them to assess information sources and arrangements with respect to their opportunities and drawbacks under different operational and organizational structures.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Managerial Accounting	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Management and Applied Microeconomics / 332123015 / 332023015	Elective	3rd
Export* / 332192315 / 332023015		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Mechanism Design and Social Choice

MA ECON AM MIT MEDSOCC

UNIVERSITÄT BONN

Content and learning outcome

Content	This course presents a thorough treatment of mechanism design and contract theory by highlighting the common themes and methodologies that unite the field. The main topics covered are hidden information models, hidden action models and incomplete contracts.
Learning outcome	The course aims at providing its participants with the methodological competence to understand and critically evaluate current research in mechanism design and contract theory. It thus complements other courses which cover similar ground from a more applied perspective.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Mechanism Design and Social Choice	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Microeconomic Theory / 332121007 / 332021007	Elective	3rd
Export* / 332192107 / 332021007		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Microeconometrics

MA ECON AM ECS MICROEC

UNIVERSITÄT BONN

Content and learning outcome

Content	The course deals with methods that are commonly used in the analysis of microeconomic datasets, including methods to deal with discrete and limited-dependent variables, discrete choice models, censored regression, models for self-selection, models for duration data and panel data. The emphasis is on the specification, estimation, interpretation, and testing of microeconometric models rather than a rigorous treatment of the asymptotic properties of estimators.
Learning outcome	Students are provided with a broad encyclopaedic knowledge of methods for the analysis of microeconomic data and to let him/her obtain an active command of the mathematical and computational aspects of the various methods.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Microeconometrics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	Basic Module Econometrics
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Econometrics and Statistics / 332125027 / 332025027	Elective	2nd
Export* / 332192527 / 332025027		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle

				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	

** export into other study programs is only possible if contract between faculties exists*

Microeconomics II

MA ECON AM MIT MICROII

UNIVERSITÄT BONN

Content and learning outcome

Content	The course covers the core topics in microeconomic theory. It includes the fundamentals of information in economics, social choice and mechanism design. The lecture provides a rigorous foundation for common modeling techniques and solutions concepts, and gives an introduction to their applications.
Learning outcome	The course aims to expose the students to the basic paradigms of modern microeconomics, on an advanced formal level. Another important goal is the exposure to a vari-ety of modeling techniques that will be often used in subsequent courses.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Microeconomics II	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	Basic Module Microeconomics
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research;Microeconomic Theory / 332121010 / 332021010	Elective	2nd
Export* / 332192110 / 332021010		

Requirements for the awarding of credit points (ECTS)		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Monetary Economics

MA ECON AM MPE MONEC

UNIVERSITÄT BONN

Content and learning outcome

Content	The course will analyze monetary economics within the class of dynamic general equilibrium models. First, conditions under which money has real effects are identified. Second, optimal policy is discussed. Further topics cover the interaction of monetary and fiscal policy, empirical findings, and the influence of the financial sector.
Learning outcome	Students will be familiar with the methods and concepts necessary to understand monetary economics and policy. Analyzing monetary policy quantitively using value function iteration, Ramsey optimal policy, linearization techniques of DSGE models

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Monetary Economics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Macroeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Financial Economics;Macroeconomics and Public Economics / 332122011 / 332022011	Elective	2nd
Export* / 332192211 / 332022011		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Christian Bayer
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Option Pricing

MA ECON AM FIE OPTPR

UNIVERSITÄT BONN

Content and learning outcome

Content	The course presents the pricing and hedging of options in the continuous time model by Black and Scholes. The model dependency of the perfect duplication strategy and its applications to risk management will be discussed. This includes a discussion of the differences between dynamic hedging strategies and static or robust hedging. Beside standard options the pricing of more complex financial contracts will be analysed. Numerical approximations like the Monte Carlo method will be applied to these contracts.
Learning outcome	The course aims to provide students with an understanding of the Black and Scholes option pricing model. It enables them to recognize the significant role of risk neutral pricing as the basis of modern option pricing theory. Students learn to apply the technique including numerical methods of risk neutral pricing to nonstandard financial products and to review the hedging strategies with respect to the risk management of options.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Option Pricing	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Finance

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Financial Economics / 332124023 / 332024023	Elective	2nd
Export* / 332192423 / 332024023		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

OSE Scientific Computing for Economists

MA AM OSE

UNIVERSITÄT BONN

Content and learning outcome

Content	The sound analysis of computational economic models requires expertise in economics, statistics, numerical methods, and software engineering. The module provides first an overview of basic numerical methods for optimization, numerical integration, approximation methods, and uncertainty quantification. Then deepens the understanding of each of these topics in the context of a dynamic model of human capital accumula-tion using respy. Finally concludes by showcasing basic software engineering practices such as the design of a collaborative and reproducible development workflow, auto-mated testing, and high-performance computing.
Learning outcome	Students learn how to use Python for advanced scientific computing. They acquire a toolkit of numerical methods frequently needed for the analysis of computational economic models, obtain an overview of basic software engineering tools such as GitHub and pytest, and are exposed to high-performance computing using multiprocessing and mpi4py.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	OSE Scientific Computing for Economists	English	30	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. / Econometrics and Statistics;Management and Applied Microeconomics / 332123029 / 332023029	Elective	3rd
Export* / 332192329 / 332023029		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination	
Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics
Further Information	
Literature	Literature: • Ken Judd. Numerical methods in economics. MIT University Press, Cambridge, MA, 2013. • Hans Petter Langtangen. A primer on scientific programming with Python. Springer, Heidelberg, Germany, 2016.

** export into other study programs is only possible if contract between faculties exists*

Personnel Economics

MA ECON AM MAM PERSECON

UNIVERSITÄT BONN

Content and learning outcome

Content	From the view of personnel economics, efficiency of the firm can be enhanced by providing appropriate incentives, by matching employees to positions they fit and by investments in human capital. This course deals with advanced wage theories and it addresses employees' motivation. In addition, it covers career theoretical aspects pertinent to the allocation of employees within the firm.
Learning outcome	The Students obtain an understanding of (1) how employees react to an employer's personnel politics and (2) how an employer should choose his personnel politics in order to generate efficient incentives and an efficient internal allocation of employees. Students also learn to analyze and critically discuss empirical findings of both field and experimental studies.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Personnel Economics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Microeconomics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Management and Applied Microeconomics / 332123014 / 332023014	Elective	3rd
Export* / 332192314 / 332023014		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Probability Theory

MA ECON AM ECS PROBTHEO

UNIVERSITÄT BONN

Content and learning outcome

Content	The course introduces to the mathematical theory of probability such as integration, probability measures, random variables, expectations, concepts of convergence and limit theorems.
Learning outcome	Students get acquainted with modern concepts and tools of probability. They obtain a rigorous basis for understanding and applying current research in statistics and probability theory.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Probability Theory	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Econometrics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Econometrics and Statistics / 332125032 / 332025032	Elective	2nd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	

** export into other study programs is only possible if contract between faculties exists*

Public Economics

MA ECON AM MPE PUBECON

UNIVERSITÄT BONN

Content and learning outcome

Content	This course offers a modern analysis of the economics of the public sector. Topics include the theory and practice of taxation, government debt and sovereign default as well as issues in social security and health economics.
Learning outcome	The students acquire solid knowledge of the quantitative methods and models for the analysis of public policies. They become familiar with the current state of research and learn the tools and techniques necessary for conducting their own research in this area.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Public Economics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	A solid background in macroeconomics is recommended.

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Macroeconomics and Public Economics / 332122019 / 332022019	Elective	2nd
Export* / 332192219 / 332022019		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Christian Bayer
Institute/Department	Department of Economics

Further Information

Literature	Literature: The recommended literature will be announced at the beginning of the course

** export into other study programs is only possible if contract between faculties exists*

Research Module in Econometrics and Statistics

MA ECON RM ECS

UNIVERSITÄT BONN

Content and learning outcome	
Content	The course provides students with a variety of new methods for analyzing large and complex sets of economic data. Practical implementation to read data problems is part of the course as well. Students will become familiar with basics of scientific methods in the field, with literature search, with reading and documenting scientific articles in Econometrics and Statistics as well as defining research topics and formulating specific research questions.
Learning outcome	Students are acquainted with quantitative research methods. They are able to document, present and defend the results of their research.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Research Module in Econometrics and Statistics	English	15	4 hours	60
Self-study					390

Prerequisites	
obligatory	Any two advanced modules (except Topics)
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Econometrics and Statistics / 332125050 / 332025050	Elective	3rd

Requirements for the awarding of credit points (ECTS)		Credits
Prerequisites for participation	none	15,0 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination	
Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics
Further Information	
Literature	The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Research Module in Financial Economics

MA ECON RM FIE

UNIVERSITÄT BONN

Content and learning outcome

Content	Financial decision taking in general and in particular the regulation of financial markets, the incentive problems in management payments, the valuation and risk management of financial products and insurance contracts are central questions of many economic situations. The module will focus on theoretical models as well as empirical results of valuation, risk taking and management as well as regulation in different areas (e.g., in corporate finance, banking and insurance regulation, pricing and hedging of derivative contracts, dynamic models of traded and non-traded financial risk).
Learning outcome	After completion of a project module students should: be familiar with the basics of scientific methods relevant for the topic of the project module, be able to do a literature search, read and document scientific articles in Economics, be capable of defining research topics, formulating specific research questions in Economics and developing a research approach to investigate, be acquainted with academic research methods relevant for investigating the project's topic, be able to document, present and defend in class the results of their research.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Research Module in Financial Economics	English	15	4 hours	60
Self-study					390

Prerequisites

obligatory	Basic Module Finance and any two advanced modules (except Topics)
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Financial Economics / 332124050 / 332024050	Elective	3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	15,0 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Research Module in Macroeconomics and Public Economics

MA ECON RM MPE

UNIVERSITÄT BONN

Content and learning outcome

Content	Modern macroeconomics has moved to explore the quantitative implications of market interactions in the aggregate economy. These quantitative models focus on the structure of the economic decision problems single agents in the economy face, allow for (explicit) aggregation and finally to address a variety of research questions. The module will focus on theoretical models, their solution and their empirical application.
Learning outcome	After completion of a project module students should: be familiar with the basics of scientific methods relevant for the topic of the project module, be able to do a literature search, read and document scientific articles in Economics, be capable of defining research topics, formulating specific research questions in Economics and developing a research approach to investigate, be acquainted with academic research methods relevant for investigating the project's topic, be able to document, present and defend in class the results of their research.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Research Module in Macroeconomics & Public Economics	English	15	4 hours	60
Self-study					390

Prerequisites

obligatory	Basic Module Macroeconomics and any two advanced modules (except Topics)
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Macroeconomics and Public Economics / 332122050 / 332022050	Elective	3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	15,0 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Christian Bayer
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Research Module in Management and Applied Microeconomics

MA ECON RM MAM

UNIVERSITÄT BONN

Content and learning outcome

Content	Cooperation and incentive problems are at the heart of many economic situations: for example, a group's joint outcome is highest if group members cooperate, but individual payoff maximization leads to free-riding and cooperation failures. The module will focus on theoretical models as well as empirical results of cooperation and incentive issues in different areas (e.g., in public economics, personnel economics and industrial organization). For example, light will be shed on the provision of public goods, the interaction of employees at the workplace and the collusion of firms.
Learning outcome	After completion of a project module students should: be familiar with the basics of scientific methods relevant for the topic of the project module, be able to do a literature search, read and document scientific articles in Economics, be capable of defining research topics, formulating specific research questions in Economics and developing a research approach to investigate, be acquainted with academic research methods relevant for investigating the project's topic, be able to document, present and defend in class the results of their research.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Research Module in Management and Applied Microeconomics	English	15	4 hours	60
Self-study					390

Prerequisites

obligatory	Basic Module Microeconomics and any two advanced modules (except Topics).
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Management and Applied Microeconomics / 332123050 / 332023050	Elective	3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	15,0 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle

				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Research Module in Microeconomic Theory

MA ECON RM MIT

UNIVERSITÄT BONN

Content and learning outcome

Content	When individuals interact, incentive problems are the rule rather than the exception. Individuals need to have incentives to reveal information that is used to reach desirable outcomes. Incentives are provided through different forms of social interactions, be that contracts or simply procedural rules. We study theoretical models of interactions among strategic agents in various contexts. One such context is communication and decision making, where we advance our understanding of procedural rules - such as the ones governing the interactions between the US congress and its standing committees - as we see them in practice. Other contexts include the optimal organization of and optimal contracting within firms and further applications.
Learning outcome	After completion of a project module students should: be familiar with the basics of scientific methods relevant for the topic of the project module, be able to do a literature search, read and document scientific articles in Economics, be capable of defining research topics, formulating specific research questions in Economics and developing a research approach to investigate, be acquainted with academic research methods relevant for investigating the project's topic, be able to document, present and defend in class the results of their research.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Research Module in Microeco-nomic Theory	English	15	4 hours	60
Self-study					390

Prerequisites

obligatory	Basic module Microeconomics and any two advanced modules (except Topics)
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Microeconomic Theory / 332121050 / 332021050	Elective	3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	15,0 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

** export into other study programs is only possible if contract between faculties exists*

Stochastic Processes

MA ECON AM ECS STOPROC

UNIVERSITÄT BONN

Content and learning outcome

Content	The course provides thorough treatment of structural and asymptotic properties, theory and application of stochastic processes.
Learning outcome	Students understand concepts of stochastic processes and achieve technical competence for understanding current research and developing stochastic models.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Stochastic Processes	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	none
recommended	Basic Module Econometrics

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Econometrics and Statistics;Economic Research / 332125029 / 332025029	Elective	3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	

** export into other study programs is only possible if contract between faculties exists*

Time Series Econometrics

MA ECON AM ECS TIMESEC

UNIVERSITÄT BONN

Content and learning outcome

Content	The course shows time series methods used in economic and financial applications such as ARIMA, unit root processes, cointegration or vector autoregression.
Learning outcome	Students should be able to understand and use tools for the analysis of uni- and multivariate time series.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Lecture	Time Series Econometrics	English	30	4 hours	60
Self-study					165

Prerequisites

obligatory	Basic Module Econometrics
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Econometrics and Statistics;Economic Research / 332125031 / 332025031	Elective	3rd
Export* / 332192531 / 332025031		

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Written or oral exam or term paper (graded, 100%), English	

Course Cycle

				Workload	Duration
Winter term	x	Winter and Summer term		**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	

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Topics in Econometrics and Statistics

MA ECON AM ERS TOPECS

UNIVERSITÄT BONN

Content and learning outcome

Content	This course covers current research topics in econometric theory and applications.
Learning outcome	Participants learn to read technically and conceptually demanding original literature. They acquire skills to do independent research.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Topics in Econometrics and Statistics	English	15	2 hours	30
Self-study					195

Prerequisites

obligatory	Basic Modules Mathematics for Economists and Econometrics must be successfully passed (graded 4.0 or better).
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research / 332134002 / 332034002	Elective	2nd/ 3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term	x	**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Alois Kneip
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

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Topics in Financial Economics

MA ECON AM ERS TOPFIE

UNIVERSITÄT BONN

Content and learning outcome

Content	This course covers current research topics in financial economics, including original results obtained within the joint research activities of the Economics Department of Bonn University as well as related topics from the recent literature.
Learning outcome	Participants learn to read technically and conceptually demanding original literature and to present the results to other participants. If participants encounter difficulties in understanding details of the literature, they must learn to narrow down the problem and to formulate exact questions. The course prepares students to do independent research and to participate in the joint research activities of the Economics Department.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Topics in Financial Economics	English	15	2 hours	30
Self-study					195

Prerequisites

obligatory	The basic modules Microeconomics and Mathematics for Economists must be successfully passed (graded 4.0 or better).
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research / 332130038 / 332030038	Elective	2nd/ 3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term	x	**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Hendrik Hakenes
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

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Topics in Macroeconomics and Public Economics

MA ECON AM ERS TOPMPE

UNIVERSITÄT BONN

Content and learning outcome

Content	This course covers current research topics in Macroeconomics and Public Economics, including original results obtained within the joint research activities of the Economics Department of Bonn University as well as related topics from the recent literature.
Learning outcome	Participants learn to read technically and conceptually demanding original literature and to present the results to other participants. If participants encounter difficulties in understanding details of the literature, they must learn to narrow down the problem and to formulate exact questions. The course prepares students to do independent research and to participate in the joint research activities of the Economics Department.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Topics in Macroeconomics & Public Economics	English	15	2 hours	30
Selfwork					195

Prerequisites

obligatory	Basic modules Macroeconomics and Mathematics for Economists must be successfully passed (graded 4.0 or better).
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research / 332131002 / 332031002	Elective	2nd/ 3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term	x	**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Christian Bayer
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

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Topics in Management and Applied Microeconomics MA ECON AM ERS TOPMAM	UNIVERSITÄT BONN

Content and learning outcome	
Content	This course covers current research topics in management and applied microeconomics, including original results obtained within the joint research activities of the Economics Department of Bonn University as well as related topics from the recent literature.
Learning outcome	Participants learn to read technically and conceptually demanding original literature and to present the results to other participants. If participants encounter difficulties in understanding details of the literature, they must learn to narrow down the problem and to formulate exact questions. The course prepares students to do independent research and to participate in the joint research activities of the Economics Department.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Topics in Management and Applied Microeconomics	English	15	2 hours	30
Selfwork					195

Prerequisites	
obligatory	Basic modules Microeconomics and Mathematics for Economists must be successfully passed (graded 4.0 or better).
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research / 332130037 / 332030037	Elective	2nd/ 3rd

Requirements for the awarding of credit points (ECTS)		**Credits**
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle				**Workload**	**Duration**
Winter term		Winter and Summer term	x	**225 h**	**1 Term**
Summer term					

Module coordination	
Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Matthias Kräkel
Institute/Department	Department of Economics
Further Information	
Literature	The recommended literature will be announced at the beginning of the course.

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Topics in Microeconomic Theory

MA ECON AM ERS TOPMIT

UNIVERSITÄT BONN

Content and learning outcome

Content	This course covers current research topics in microeconomic theory, including original results obtained within the joint research activities of the Economics Department of Bonn University as well as related topics from the recent literature.
Learning outcome	Participants learn to read technically and conceptually demanding original literature and to present the results to other participants. If participants encounter difficulties in understanding details of the literature, they must learn to narrow down the problem and to formulate exact questions. The course prepares students to do independent research and to participate in the joint research activities of the Economics Department.

Teaching and learning methods

Type of course/ learning methods	Topic	Language of instruction	Group size	Contact time	Work load [h]
Seminar	Topics in Microeconomic Theory	English	15	2 hours	30
Self-study					195

Prerequisites

obligatory	Basic modules Microeconomics and Mathematics for Economists must be successfully passed (graded 4.0 or better).
recommended	

Degree program allocation

Study Program/Study Field/Module Number/Lecture Number	obligatory/ elective	Semester
Economics, M.Sc. / Economic Research / 332130004 / 332030004	Elective	2nd/ 3rd

Requirements for the awarding of credit points (ECTS)

		Credits
Prerequisites for participation	none	7,5 LP
Types of Assessment Examination language	Presentation (graded, 40%) and term paper or essay (graded, 60%), English	

Course Cycle				Workload	Duration
Winter term		Winter and Summer term	x	**225 h**	**1 Term**
Summer term					

Module coordination

Teaching person	See https://basis.uni-bonn.de
Module coordinator	Prof. Dr. Dezsö Szalay
Institute/Department	Department of Economics

Further Information

Literature	The recommended literature will be announced at the beginning of the course.

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Master Thesis MA ECON MAARBEIT	UNIVERSITÄT BONN

Content and learning outcome	
Content	The Master Thesis must rest on an intensive and thorough reading of selected papers of the economic literature, including a full understanding of the formal and methodological details.
Learning outcome	Participants must show that they are able to summarize, to compare to synthesize and to extend methodologically demanding economic literature. The text must be written in a concise form. Readers with economic training but no specialization in the field of the Master Thesis must be able to read and to understand the text.

Teaching and learning methods					
Type of course/ learning methods	**Topic**	**Language of instruction**	**Group size**	**Contact time**	**Work load [h]**
	Master	English			900

Prerequisites	
obligatory	The topic of the Master thesis can only be issued if • the basic module "Mathematics for Economics" and three additional basic modules have been successfully passed, • one advanced module of the study field to which the Master thesis is assigned has been successfully passed • and a research module in any study field has been passed.
recommended	

Degree program allocation		
Study Program/Study Field/Module Number/Lecture Number	**obligatory/ elective**	**Semester**
Economics, M.Sc. / --/ 8001 / 330008000	Obligatory	4th

Requirements for the awarding of credit points (ECTS)		**Credits**
Prerequisites for participation	none	30,0 LP
Types of Assessment Examination language	Written academic paper; max. 40 pages (graded, 100%), English	

Course Cycle				**Workload**	**Duration**
Winter term		Winter and Summer term		**225 h**	**1 Term**
Summer term	x				

Module coordination	
Teaching person	See https://basis.uni-bonn.de
Module coordinator	
Institute/Department	Department of Economics

Further Information	
Literature	Support can be requested, e.g., in the form of STATA licenses, funding for datasets, etc. For more information, please visit the following website: https://www.vwlpamt.uni-bonn.de/pruefungsamt/master/masterarbeit-1

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