UNIVERSITY OF MANNHEIM

Department of Economics

2021

Course Catalog
Fall Semester 2021

MASTER OF ECONOMICS

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Contents

Preparatory Module in Mathematics

Module number and title	E600 Mathematics
Form and usability of the module	Optional preparatory module for M.Sc. Economics
Responsible teacher of the module	Martin Reinhard
Cycle of offer	Each fall semester
Course language	English
Prerequisites	Basic knowledge in logic and set theory (please read Chapter 0 of the script). We will go rather superficially over these topics in the first lecture and you will get the most out of it if you are well prepared.
Goals and contents of the module	This course is a preparatory math course. I will thus try to make sure that you do not start the program without mastering what can be considered as the most basic mathematical concepts for a graduate student in economics. The plan therefore is as follows: • Motivation and fundamental concepts (sets, functions) • Introduction to vector spaces • Introduction to matrix algebra • Multivariate calculus and integral calculus • Optimization Order of content may be subject to change, the final outline will be announced in the first session. While the lecture sessions will be concept- rather than proof-oriented, by the end of the course, at the very least you should be comfortable with mathematical notation and logic, and should know that you need not be scared of formal proofs. At the same time, while the exercises will not be of the "cookbook" form, they should serve as a good warm-up for what will follow in the first term master courses.
Expected competences acquired after completion of the module	By the end of the course the students should have a solid understanding of the most basic mathematical concepts for a graduate student in economics. Participants develop an intuition for basic mathematical constructs (for example derivatives, integrals and matrices), get familiar with mathematical notation and logic (such as distinguishing between axioms and theorems, following formal proofs), and learn when and how to apply the main theorems covered in this course (in particular Lagrange theorem).
Further information	This is an intensive course and will take place in the week prior to the beginning of the semester. The course will consist of lectures and exercise sessions. Despite these official hours, we shall be flexible to divide our time between lectures, exercise and breaks each day so as to best suit our needs. As in most courses, you will need to put some extra time into preparing the

	exercises for the next session on your own. Problem sets will be handed out during the lecture and most of them will be discussed during the next days. I expect every participant to actively contribute to the discussions. If you feel you need some additional readings, you may want to have a look at Carl P. Simon / Lawrence Blume (1994): Mathematics for Economists, 1st Edition. W.W. Norton & Company, but there are many other good books around and I recommend you have a look at many of them before you buy any to find one which best suits your personal needs.
Expected number of students in class	-
Contact information	Name: Martin Reinhard (lecturer); Email: mareinha@mail.uni-mannheim.de Name: Sebastian Herdtweck (administration); Email: econgrad@uni-mannheim.de

Core Modules

Module number and title	E601 Advanced Microeconomics
Form and usability of the module	Core course for M.Sc. Economics
Responsible teacher of the module	Prof. Ernst-Ludwig von Thadden / Dr. Peter Duersch
Cycle of offer	Each fall semester
ECTS credits	10
Teaching method (hours per week)	Lecture (4) + exercise (2)
Workload	300 hours in total; 63 hours class time and 237 hours for independent studies and exam preparation
Course language	English
Prerequisites	Students are expected to have solid mathematical skills at the level reviewed in preparatory module E600 Mathematics. Students without these skills are expected to prepare prior to the start of the program and to attend E600 Mathematics.
Grading	Final exam (120 min)
Goals and contents of the module	The course is a foundational course for the whole master's program, as all theories and applications of modern economics are based on microeconomic foundations. The course has two objectives. First, it provides a self-contained advanced introduction to the core concepts, notions, and

	tools of much of microeconomics, such as rational individual decision making, general equilibrium, and strategic interactions. Second, it acquaints the students with the formal reasoning and economic intuition behind modern economic analysis. The course covers the following broad areas: • Consumer and producer theory • General equilibrium and welfare • Games of complete information • Games of incomplete information
Expected competences acquired after completion of the module	Upon successful completion of the course, students will know and be able to apply the basic concepts of microeconomic theory. In particular, they will be able to use the formal mathematical tools necessary for understanding economic research and for analyzing problems in economics and other social sciences. With these conceptual and formal competences, students will be able to critically evaluate economic arguments and conduct and communicate their own research in microeconomics and related areas.
Further information	A list of textbooks will be announced at the start of the course. The following two books cover all topics discussed in the course and much more: • Mas-Colell, Andreu, Michael Whinston, Jerry Green: Microeconomic Theory, Oxford University Press, 1995. • Varian, Hal: Microeconomic Analysis, Norton, New York and London, 1992. The mathematics needed for this and other courses in the program is covered, e.g., by: • Simon, Carl and Lawrence Blume: Mathematics for Economists, Norton, New York and London, 1994. • Hammond, Peter and Knut Sydsaeter: Essential Mathematics for Economic Analysis, Pearson Education, London, 2002.
Expected number of students in class	65
Contact information	Name: Ernst-Ludwig von Thadden; Phone: (0621) 181-1914; Email: vthadden@uni-mannheim.de; Office: 3.19, VWL-Building; Office hours: upon appointment Name: Dr. Peter Duersch; Phone: (0621) 181-3072; Email: duersch@uni-mannheim.de; Office: L7, 3-5, room 3.46; Office hours: upon appointment

Module number and title	E602 Advanced Macroeconomics
Form and usability of the module	Core course for M.Sc. Economics
Responsible teacher of the module	Prof. Krzysztof Pytka, Ph.D
Cycle of offer	Each fall semester
ECTS credits	10
Teaching method (hours per week)	Lecture (4) + exercise (2)
Workload	300 hours in total; 63 hours class time and 237 hours for independent studies and exam preparation
Course language	English
Prerequisites	Good working knowledge of calculus (constrained optimization, multivariate Taylor expansion, geometric series)
Grading	Final exam (120 min, 100%)
Goals and contents of the module	The course familiarizes students with the essential concepts of modern macroeconomic theory at an advanced level. Apart from traditional analysis of business-cycle fluctuations, a particular focus will be placed on learning how to use formal micro-founded models to study and understand cross-sectional heterogeneity of households, one of key components for the most state-of-the-art macroeconomic models nowadays. During the course students will also learn the necessary techniques to solve dynamic programming models using MATLAB. Course roadmap: 1. Introduction to the methodology. Scientific method in Macroeconomics. Ockham's razor. Lucas critique. 2. Building block of models. Preferences, production. Optimization problems of agents. 3. Permanent-income hypothesis. Lifecycle consumption. Permanent vs. transitory shocks. Public pensions in life-cycle economies. Consumption search and life-cycle prices. Consumption retirement puzzle. 4. Fiscal stimulus programs. Wealthy hand-to-mouth households. 5. Public debt in overlapping-generations economies. 6. (If time permits) Solow growth model vs. Piketty growth model. 7. Introduction to dynamic programming. 8. Optimal stochastic growth model. 9. McCall labor search.

Expected competences acquired after completion of the module	Completion of this course is a core requirement for our master's program in Economics. It prepares students to successfully participate in advanced field courses offered in this program. Together with the companion courses in microeconomics and econometrics, this course will enable students to develop their own research agenda for the Master program as well as a PhD program that they may want to pursue subsequent to this Master program. Having completed these courses, students will feel comfortable reading journal articles at the frontier of modern economic research. A particular focus will be placed on obtaining technical skills, i.e. log-linearization techniques, solving linear rational expectations models, etc.
Further information	The mandatory textbook chapters and articles will be announced in the lecture.
Expected number of students in class	65
Contact information	Name: Prof. Krzysztof Pytka, PhD; Phone: (0621) 181-1817; Email: pytka@uni-mannheim.de; Office: L7, 3-5, room 2.09; Office hours: upon appointment

Module number and title	E603 Advanced Econometrics
Form and usability of the module	Core course for M.Sc. Economics
Responsible teacher of the module	Prof. Markus Frölich
Cycle of offer	Each fall semester
ECTS credits	10
Teaching method (hours per week)	Lecture (4) + exercise (2)
Workload	300 hours in total; 63 hours class time and 237 hours for independent studies and exam preparation
Course language	English
Prerequisites	Undergraduate level of econometrics
Grading	Final exam (120 min)
Goals and contents of the module	The goal of the module is to offer advanced treatment of econometric theory and to serve as the gate way to further advanced theoretical and applied econometric modules offered in the economics graduate program at the Department of Economics in Mannheim.

	The module offers a revision of undergraduate level econometrics before moving on to extensive coverage of large-sample theory and some organizing estimation principles such as GMM estimators. Asymptotic properties of these estimators are also the focus of the module as well as non-linear models and the treatment of serial correlation.
Expected competences acquired after completion of the module	On successful completion of the module, students are expected to attain the following competences: • Attain advanced theoretical knowledge in econometrics in the specific topics the module covers at a high technical and mathematical level. • Be familiar with current theories and recent developments in the specific topics of focus for the module. • Attain a higher/advanced level of analytical capability. • Be in a position to take on follow-up advanced theoretical and applied econometrics modules. • Attain the level of competence that permits independent undertakings in search of new knowledge in the specialist areas the module covers. • Attain the level of competence required to carry out (theoretical) research-oriented projects independently. • To be in a position to exchange information, ideas, and solutions with experts of the field on a scientific level as well as with laymen. • To be able to communicate and to work effectively and efficiently with people and in groups. • Graduates are able to communicate precisely in the English specialist language.
Further information	Recommended textbooks: • Wooldridge (2010): Econometric Analysis of Cross Section and Panel Data. MIT Press. • Econometrics; Bruce E. Hansen; University of Wisconsin; https://www.ssc.wisc.edu/~bhansen/econometrics/
Expected number of students in class	65
Contact information	Name: Prof. Dr. Markus Frölich; Email: froelich@uni-mannheim.de; Office: L7, 3-5, room 1.14; Office hours: upon appointment

Compulsory Modules for the Competition and Regulation Economics Track

Module number and title	E5060 Interdisciplinary Competition and Regulation Seminar
Form and usability of the module	Compulsory course for M. Sc. Economics with specialization Competition and Regulation Economics, Compulsory course for Master in Competition and Regulation Law (LL.M.)
Responsible teacher of the module	Prof. Dr. Volker Nocke /Prof. Dr. Jens-Uwe Franck, LL.M. (Yale)
Cycle of offer	Each fall semester
ECTS credits	5
Teaching method (hours per week)	Seminar (2)
Workload	150 hours in total; 21 hours class time and 129 hours for independent studies and exam preparation
Course language	English
Prerequisites	E505 for Economics students
Grading	Written report (50%), presentation (30%), and classroom discussion (20%)
Goals and contents of the module	In this seminar, economics and law students will form mixed teams to analyze competition cases as well as regulatory proposals from a law and economics perspective. These case teams will take the perspective of the different parties involved and present their line of argument in class.
Expected competences acquired after completion of the module	Students learn to read, present, and critically evaluate cases. Students in economics will also improve their communication skills regarding the practice of competition law.
Further information	-
Expected number of students in class	15
Contact information	Name: Prof. Volker Nocke, Ph.D.; Email: nocke@uni-mannheim.de; Office: L7, 3-5, room 3.05; Office hours: upon appointment

Elective Modules: Lectures

Module number and title	E508 Multiple Time Series Analysis
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Dr. Carsten Trenkler
Cycle of offer	Each fall semester
ECTS credits	9.5
Teaching method (hours per week)	Lecture (3) + exercise (1)
Workload	285 hours in total; 42 hours class time and 243 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent); Master in Business Economics: none
Grading	Final exam (90 min, 75%) and assignments (25%)
Goals and contents of the module	The lecture gives an introduction to multiple time series techniques and will cover vector autoregressive (VAR) processes, VAR estimation, VAR order selection and model checking. If time permits, we will also cover VARMA, Structural VAR models and so-called VEC models. The use of VAR models in forecasting and impulse response analysis will be explained and illustrated using empirical examples and by discussing a selected set of research papers. The methods will be applied in computer tutorials using Matlab. This course is complementary to E0538 Empirical Macroeconomics. While the latter course looks at multiple time series models from an applied macro perspective, we take an econometric approach and deal with the VAR model framework in more detail.
Expected competences acquired after completion of the module	The ability to understand and the use the fundamental tools of multiple time series for applied and methodological analyses. Successful course participants are able to understand, evaluate, and synthesize the relevant specialized literature and to conduct own empirical analyses in order to address economic and policy relevant research questions. They are able to communicate their research results to experts and nonexperts.
Further information	Recommended literature: Lütkepohl, H. (2005), New Introduction to Multiple Time Series Analysis, Springer, Berlin, Chapters 1-4, 6-9, and 11-13, Appendices A-D; Kilian and Lütkepohl (2017), Structural Vector Autoregressive Analysis, CUP, Cambridge, Chapters 1-3.

Expected number of students in class	15
Contact information	Name: Prof. Dr. Carsten Trenkler; Email: trenkler@uni-mannheim.de; Office: L7, 3-5, Room 105

Module number and title	E551 Experimental Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Franziska Heinicke, Ph.D.
Cycle of offer	Irregular
ECTS credits	9
Teaching method (hours per week)	Lecture (2) + exercise (2)
Workload	270 hours in total; 42 hours class time and 228 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Final exam (90 min, 65%) and assignments (35%)
Goals and contents of the module	This course will introduce students to the method of experimental economics as an empirical research method, which has become an established tool for economic analysis. Economists make use of experimental methods to test theoretical predictions, gain a better understanding of human behavior and to search for regularities in economic activity. This course will familiarize students with the principles of conducting and analyzing an experiment. We will start by considering the differences between experiments and other empirical methods and then will address the complete process of conducting an experiment including appropriate randomization protocols, the decision between various treatment forms, choosing an appropriate research setting, and drawing conclusion from collected data. By discussing the designs and findings of influential experiments, this course will address the different design challenges of laboratory and field experiments as well as the generalizability of experimental findings.
Expected competences acquired after completion of the module	The goal of this course is to enable students to critically analyze experimental research and to provide them with the necessary practical knowledge to plan an experimental research project. Successful students will have a thorough understanding of the benefits and limits of experimental economics and be familiar with core concepts of experimental

	economics. In the assignment, students will design their own experiment over several weeks and repeatedly present their progress to the course, which allows them to engage with the material more actively and gain research skills on how to conduct economic experiments.
Further information	The goal of this course is to enable students to critically analyze experimental research and to provide them with the necessary practical knowledge to plan an experimental research project. Successful students will have a thorough understanding of the benefits and limits of experimental economics and be familiar with core concepts of experimental economics. In the assignment, students will design their own experiment over several weeks and repeatedly present their progress to the course, which allows them to engage with the material more actively and gain research skills on how to conduct economic experiments.
Expected number of students in class	15
Contact information	Name: Franziska Heinicke, Ph.D.; Email: f.heinicke@uni-mannheim.de, Office: L7, 3-5, 4.04, Office hours: upon appointment

Module number and title	E571 Monetary Theory and Policy
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Klaus Adam, Ph.D.
Cycle of offer	Irregular
ECTS credits	5
Teaching method (hours per week)	Lecture (2)
Workload	150 hours in total; 21 hours class time and 129 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Final exam (120 min, 70%) and assignments (30%)
Goals and contents of the module	The course familiarizes students with the essential concepts of modern monetary theory at advanced level. In particular, the course provides an in-depth introduction to the New Keynesian framework, which is an important workhorse to analyze monetary policy strategies and their implications for inflation and business cycles. Also, this framework constitutes the backbone of many medium-scale monetary models used at the Federal Reserve Board,

	the ECB and other major central banks. The course also discusses applications of the New Keynesian framework to understand the pros and cons of alternative policy strategies, e.g., inflation versus price level targeting, or the difficulties that arise when interest rates set by the central bank are constrained by the zero lower bound. In passing, the course revisits necessary techniques to obtain numerical model solutions.
Expected competences acquired after completion of the module	Students will comprehend conceptual issues underlying the practical, day to day conduct of monetary policy and know how to use economic intuition and models to address some of these issues. Also, having completed this course, students will feel comfortable reading journal articles at the research frontier of modern monetary economics.
Further information	Detailed reading information is provided in class..
Expected number of students in class	15
Contact information	Name: Susanne Putz; Email: sekretariatadam@uni-mannheim.de; Office: L7, 3-5, room 2.44; Office hours: upon appoointment

Module number and title	E5008 Economic and Financial Market Policy
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Dr. Hans Peter Grüner
Cycle of offer	Once
ECTS credits	5
Teaching method (hours per week)	Lecture (2)
Workload	150 hours in total; 21 hours class time and 129 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	First draft of slides for case presentation (10%), case presentation (30%), and final exam (60 min, 60%)
Goals and contents of the module	This course offers an introduction to several important economic policy questions that are related to financial markets. I present basic analytical instruments and provide an overview of some fundamental results from general equilibrium theory. Based on this, we study why financial markets are needed in practice. We analyze in detail the role of financial

	intermediaries and study cases in which financial markets fail to work properly and we discuss appropriate policy responses. The last sessions are devoted to the analysis of fiscal and monetary policy measures that may affect financial markets and to the design of a new financial and economic order in Europe. Course Structure: 1. Analytical instruments/ basic results 2. The role of financial intermediaries 3. Financial market imperfections 4. Fiscal sustainability 5. Monetary policy institutions 6. Towards a consistent European economic policy framework
Expected competences acquired after completion of the module	Understand role of financial markets, regulatory institutions and policy interventions. Perform individual literature research on policy related issues and present major insights.
Further information	It is planned that the course takes place in a classroom in October and November. The planned maximum number of students is 16. All students must apply for participation until September 17, 2020 via lswipol@vwl.uni-mannheim.de. The application must include the name and the field of study. Priority is given to students in the MSc Economics program. Other students are permitted only if space permits. The selection of participants is done by lottery (if needed). Students will be notified about the admission by September 21.
Expected number of students in class	15
Contact information	Name: Prof. Dr. Hans Peter Grüner; Phone: (0621) 181-1886; Email: gruener@uni-mannheim.de; Office: L7, 3-5, room 2-06

Module number and title	E5024 Poverty and Inequality
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Dr. Marc Gillaizeau
Cycle of offer	Each fall semester
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)

Workload	210 hours in total; 31.5 hours class time and 178.5 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601- 603 (or equivalent). A background in development economics and Stata is helpful.
Grading	Presentation (20 min, 20%), Stata assignments (home assignment in week 3 and 7, 25% each), and final essay exam (45 min, 30%)
Goals and contents of the module	The course will introduce students to the main concepts of poverty and inequality measurements and the critical links between poverty and inequality and economic growth. Students will get an overview on theories of justice, methodological aspects of poverty & inequality measurement, , gender inequalities, economic mobility, inequality and poverty in rich countries as well as development policy targeting poverty. The course will focus on low- and middle-income countries. It is structured as follows: • Introduction • Long Run Determinants of Growth • Concepts and Measurements of Poverty I • Concepts and Measurements of Poverty II • Poverty Alleviation I: (Micro-)finance • Poverty Alleviation II: Cash transfers • Concepts and Measurements of Inequality • Does Inequality Cause Growth? • Pro-Poor Growth • Inequality and Gender • Poverty and Inequality in High-Income Countries • Economic Mobility • Recap
Expected competences acquired after completion of the module	The students become acquainted with the topics in poverty and inequality and learn to critically review and discuss empirical studies in the field.
Further information	Additional teacher: Viviana Urueña
Expected number of students in class	15
Contact information	Name: Dr. Marc Gillaizeau; Email: gillaizeau@uni-mannheim.de; Office: L7, 3-5, room 1.19; Office hours: on request via email

Module number and title	E5026 Programming in Stata
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Dr. Ingo Steinke; Nicholas Barton, Ph.D.
Cycle of offer	Each fall semester
ECTS credits	9.5
Teaching method (hours per week)	Lecture (3) + exercise (1)
Workload	285 hours in total; 42 hours class time and 243 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Final exam (90 min)
Goals and contents of the module	Although Stata already offers a large number of econometric tools, novel approaches are often not available and have to be implemented by users. This course offers an introduction to advanced programming in Stata. Since comparatively few people know how to do so, Stata programming skills can be a competitive advantage. The lecture will start with an introduction to efficiently written do-files (including data processing). We will look at and discuss different data types. In hands-on sessions students will be taught how to prepare the data for analysis. Variables will be generated and their distributions explored; data will be merged; and regression results will be critically discussed. Moreover, in this course students will learn how to implement new commands for Stata and to conduct Monte Carlo simulations. These are important for verification of implementations and are used as a very important tool to analyse the small sample properties of estimators and to complement the theoretical properties of estimators making them an integral part of econometric analyses. We will also touch upon Stata's matrix programming language Mata, non-linear optimization, e.g. ML estimation and bootstrap methods.
Expected competences acquired after completion of the module	Students will be able to program quantitative methods using Stata independently. They are able to use Stata and Mata as programming languages and understand the standard syntax and the grammar of the languages. They will also be able to understand commands in Stata and edit these accordingly. Knowledge won from this module can be applied to various records. Students are capable of automatizing analysis and working efficiently. In addition to that, they will be able to conduct Monte Carlo simulations and interpret and use the results to estimate the quality of the estimation procedure. They can generate samples from a variety of

	distributions. Through Monte Carlo simulations, students will have a better comprehension of the uncertainty and quality of the estimation and test procedures.
Further information	Recommended literature: Cameron/ Trivedi (2009). Microeconometrics using Stata. Stata Press.
Expected number of students in class	21
Contact information	Name: Dr. Ingo Steinke; Email: isteinke@rumms.uni-mannheim.de Name: Name: Dr. Nicholas Barton; Email: nibarton@mail.uni-mannheim.de

Module number and title	E5040 Impact Evaluation, Causal Inference and Machine Learning
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Dr. Markus Frölich
Cycle of offer	Each fall semester
ECTS credits	5
Teaching method (hours per week)	Lecture (2)
Workload	150 hours in total; 21 hours class time and 129 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Final exam (120 min)
Goals and contents of the module	Topics will include counterfactual outcomes, heterogeneous treatment effects, (propensity) score matching, differences in differences, instrumental variables designs, randomized control trials, regression discontinuity design. The course content in 2021 will depend on the Covid situation. In the (possible) scenario that limitations to physical presence on campus are still in place in fall, there would be no computer exercise sessions. In such situation, only econometric theory will be considered and all practical aspects such as computer exercises and machine learning would be dropped and resumed again in fall 2022. Given unpredictability, the detailed course planning can only be done in September.
Expected competences	Students become acquainted with modern methods in impact evaluation.

acquired after completion of the module	
Further information	Impact Evaluation (Frölich, Sperlich, 2019, Cambridge University Press)
Expected number of students in class	20
Contact information	Name: Anja Dostert; Email: dostert@uni-mannheim.de; Office: L7, 3-5, room 1.21/1.22; Office hours: upon appointment

Module number and title	E5064 Empirical Methods in Competition Policy
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Dr. Helena Perrone
Cycle of offer	Each fall semester
ECTS credits	5
Teaching method (hours per week)	Lecture (2)
Workload	150 hours in total; 21 hours class time and 129 hours for independent studies and exam preparation.
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Final exam (120 min, 70%) and assignments (30%)
Goals and contents of the module	The objective of the course is to introduce students the empirical analysis of market power and applications to competition policy. The first part of the course will cover the main methods to measure market power, such as the identification of conduct and estimation of demand systems with differentiated products. The second part will provide competition policy applications, including empirical approaches to market definition, methods to evaluate the impact of mergers, methods to identify cartels and estimate cartel damages, and analysis of anticompetitive effects of vertical restrictions. The material is illustrated with several European or U.S. cases. In contrast with the Empirical Industrial Organization course, this course is more focused on the practice of competition policy rather than research.
Expected competences acquired after	The students will get familiarized with the main techniques used to measure market power and identify cartels, as well as to evaluate non-competitive behavior of oligopolistic firms. They will be able to apply these techniques in

completion of the module	different competition cases and also evaluate and identify weakness and strength in competition studies. Furthermore, students will develop the skill to adapt and extend the empirical techniques presented to specific cases in which there is limited time and data availability.
Further information	The reading list for this class is composed of a number of recent academic articles and competition cases.
Expected number of students in class	15
Contact information	Name: Prof. Dr. Helena Perrone; Email: helena.perrone@uni-mannheim.de

Module number and title	E5065 Health Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Cristina Bellés-Obrero, Ph.D.
Cycle of offer	Each fall semester
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)
Workload	210 hours in total; 31.5 hours class time and 178.5 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Referee report: written report (15%) and presentation (15%) Research proposal: written paper (35%) and presentation (25%) Discussion of research proposal of other student (10%)
Goals and contents of the module	This course is intended to provide an overview of the frontier research on the evaluation of public programs that deal with issues related to determinants of health and health care delivery. We will start the course analyzing some of the theoretical models of health and healthcare. We will then revise and evaluate some of the main empirical findings in the literature, focusing on the identification and causal inferences used in the different studies. The specific topics covered include: the human capital model, human capital formation, unhealthy behaviors, global health, and health care delivery.
Expected competences	Students will have a comprehensive knowledge of the most relevant issues and methods used in health economics. Moreover, students will be able to

acquired after completion of the module	apply different microeconomic models for the analysis of health and health care issues. Students will be able to identify and critically evaluate different health policies or interventions.
Further information	-
Expected number of students in class	15
Contact information	Name: Cristina Bellés-Obrero; Email: cbelleso@mail.uni-mannheim.de; Office: L7, 3-5, room 3.26; Office hours: upon appointment

Module number and title	E5070 Economics of Social Insurance and Labor Market Policies
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Han Ye, Ph.D.
Cycle of offer	Each fall semester
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)
Workload	210 hours in total; 31.5 hours class time and 178.5 hours for independent studies.
Course language	English
Prerequisites	E601-603 (or equivalent), especially econometrics at the master level. Experience with statistical software such as Stata will be helpful.
Grading	Research proposal (70%) and referee report (30%)
Goals and contents of the module	This course focuses on the role of public policy and government regulation in the labor market using the tools of applied economics. The overarching theme of the course will be to consider how public policies influence labor market outcomes such as employment, wages, and the distribution of income. It covers topics the impact of public policies such as social welfare programs, taxation, income transfer programs, minimum wage laws; and the impacts of mandated employer benefits such as health insurance, unemployment insurance and public pension insurance. The class will teach some basic econometrics and most problem sets involve analyzing data in the software package Stata.
Expected competences acquired after completion of the module	The goal of the course is to provide a thorough understanding of central concepts in social insurance and public policies, learn mathematical models to clarify economic interactions and problems and to provide an introduction into empirical research in public policy.

Further information	-
Expected number of students in class	15
Contact Information	Name: Prof. Han Ye; Email: han.ye@uni-mannheim.de; Office: L7, 3-5, Room 2.23; Office hours: upon appointment

Module number and title	E5086 Chinese Economy
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Lei Li, Ph.D.
Cycle of offer	Each fall semester
ECTS credits	5
Teaching method (hours per week)	Lecture (2)
Workload	150 hours in total; 21 hours class time and 129 hours for independent studies.
Course language	English
Prerequisites	Econometrics, Microeconomics, Macroeconomics, Programming in Stata
Grading	Assignments (90%) and classroom discussion (10%)
Goals and contents of the module	This course is designed for graduate students interested in international trade, labor economics, development economics, applied econometrics, and the Chinese economy. Our first goal is to provide an introduction to a set of important topics related to the economic development of China so that students have a good understanding of the Chinese economy and China's impact on the rest of the world. A tentative list of topics includes the US-China trade war, China's one-child policy, unbalanced sex ratio, aging, income inequality, agricultural reforms, and firm reforms. The second goal is to present the empirical tools used to test related economic theories in the context of China and to discuss the empirical relevance of related theories. We will emphasize the conceptual issues and basic statistical techniques, such as instrumental variables strategy and differences-in-differences-type strategies. Students will also get familiar with several widely used Chinese datasets and learn how to conduct empirical analysis.

	Our third goal to introduce the frontier researches to students. We will draw on some recent academic papers from development economics, labor economics, international trade, macroeconomics, and economic growth, which will allow students to have a good understanding of cutting-edge researches and help students outline future research questions.
Expected competences acquired after completion of the module	Students are expected to have a good understanding of topics on the US-China trade war, China's entering the WTO, China's population control policy, aging, income inequality, firm reforms, agricultural reform, and several important economic reforms. Students are expected to have a good understanding of several widely used applied econometric tools, such as instrumental variable strategy and differences-in-differences-type strategies. Students will be able to summarize and compare various theories that explain China's economic development. Students will also be able to use STATA to conduct empirical analysis.
Further information	-
Expected number of students in class	15
Contact information	Name: Prof. Lei Li, Ph.D.; Email: lei.li@uni-mannheim.de; Office: L7, 3-5, room 3.01; Office hours: upon appointment

Module number and title	E5087 Banking and Banking Regulation
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Ernst-Ludwig von Thadden
Cycle of offer	Irregular
ECTS credits	5
Teaching method (hours per week)	Lecture (2)
Workload	150 hours in total; 21 hours class time and 129 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent), knowledge in Industrial Organization and Game Theory is advantageous
Grading	Final exam (180 min)
Goals and contents of the module	The course covers the basic theory of banking and its regulation, with an emphasis on the systemic problems of financial stability. The course will first

	cover classic theories of banking based on screening, monitoring, risk-sharing, maturity transformation, and liquidity provision. It will then address problems of financial stability with respect to banking as well as to shadow banking and discuss regulation in the context of the current debate about macroprudential regulation and the Basel reform process.
Expected competences acquired after completion of the module	Upon successful completion of the course, students should understand the most important economic functions of banks and the associated potential of banking failures. They will acquire the necessary analytical tools to understand the current regulatory debate about banking reform and should be able to critically assess the merits of different reform proposals.
Further information	There is no textbook for this course, as some of the material is still fairly new and subject to ongoing research. The following book provides a broad overview over modern banking and financial markets and covers many topics of the course in quite accessible form: Greenbaum, Stuart, Anjan Thakor, and Arnout Boot, Contemporary Financial Intermediation, Third Edition, Academic Press 2016. This book is written for a less advanced audience than the Mannheim MSc and therefore does not cover some of its themes in the same depth as our course. Another excellent and very accessible book on a central problem of banking is: Admati, Anat and Martin Hellwig, The Bankers' New Clothes, Princeton University Press 2013.
Expected number of students in class	15
Contact information	Ernst-Ludwig von Thadden, Phone: (0621) 181 - 1914; email: vthadden@uni-mannheim.de; Office: L7, 3-5, room 3.19; Office hours: upon appointment

Module number and title	E5090 Internet Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Anton Sobolev, Ph.D.
Cycle of offer	Irregular
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)
Workload	210 hours in total; 31.5 hours class time and 178.5 hours for independent studies and exam preparation
Course language	English

Prerequisites	E601-603 (or equivalent), knowldege in Industrial Organization and Game Theory is advantageous
Grading	Final exam (120 min, 100%)
Goals and contents of the module	The last two decades have seen the striking emergence of new Internet platforms for search, e-commerce, online media, job matching, social networking and other online activities. This course is aimed at exploring how online businesses are organized, what role search intermediaries play in getting together buyers and sellers, the optimal design of online platforms and related efficiency issues. The topics we are going to cover are based on real world examples, such as consumer search using search engines, competition between online platforms, sponsored search auctions used by Google and online reputation mechanisms on Amazon. The course will be mainly theory-orientated. The theoretical models we will cover thus require a solid microeconomics and math background. However, we will also discuss related case studies, empirical works and experiments.
Expected competences acquired after completion of the module	Students are expected to acquire knowledge of the internet markets and learn how to explain online phenomena by using economics language. They should be able to discuss the key mechanisms on online platforms, platform pricing structure, online participant interactions, consumer surplus and related policy issues.
Further information	There is no required textbook for this course. The lecture will be mainly based on lecture notes and some research papers. However, the following books might be useful for both refreshing basic IO knowledge and selective reading of topics: • Paul Belleflamme and Martin Peitz, Industrial Organization: Markets and Strategies, 2010, Cambridge University Press. • Martin Peitz and Joel Waldfogel, The Oxford Handbook of The Digital Economy, 2012, Oxford University Press. • Hal Varian, Information Rules: A Strategic Guide to the Network Economy, 1998, Harvard Business Review Press. Notice that it is unnecessary to buy those books, as we will only cover a small fraction of each book.
Expected number of students in class	15
Contact information	Name: Anton Sobolev, Ph.D.; Email: anton.sobolev@uni-mannheim.de

Module number and title	E5100 Topics in Economic History
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Dr. Alexander Donges

Cycle of offer	Each fall semester
ECTS credits	9
Teaching method (hours per week)	Lecture (2) + exercise (2)
Workload	270 hours in total; 42 hours class time and 228 hours for independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Final exam (100 min, 70%), presentation (20%), and classroom discussion (10%)
Goals and contents of the module	Economic history is important to understand long-run economic development, in particular to study the question why some countries are rich and others remain poor. In this course, we focus on selected topics of quantitative economic history that applied economists and economic historians explored in recent years. Topics include trade and the growth of cities, the importance of institutions for economic development, religion, human capital, innovation, market integration, financial development, inequality, and health and epidemics. The lecture (2 hours) gives you an overview on recent empirical research on each topic. In the exercise sessions, we then discuss important research papers in more depth. It is required that every course participant presents a critical discussion of a research paper in the exercise session. The presentation accounts for 20% of the final grade, and the participation in the related discussions accounts for 10% of the final grade.
Expected competences acquired after completion of the module	Students will acquire thorough knowledge of empirical methods used in modern applied economics and of the main topics of research in economic history. They will be able to apply their knowledge of econometrics in analyzing research questions in economic history and to discuss potential policy implications, for example with respect to development policy. The course also aims at enabling students to critically evaluate research designs they may encounter in their future career.
Further information	A detailed syllabus (including literature) is available on my website (https://www.vwl.uni-mannheim.de/en/donges/).
Expected number of students in class	15
Contact information	Name: Dr. Alexander Donges; Phone: (0621) 181 – 3428; Email: donges@uni-mannheim.de; Office: L7, 3-5, room 4.03; Office hours: upon appointment

Elective Modules: Seminars

Module number and title	E574 Internet Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Anton Sobolev, Ph.D.
Cycle of offer	Irregular
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation.
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Presentation (30%), seminar paper (60%), and classroom discussion (10%)
Goals and contents of the module	The rapid development of Internet provides not only new business models and life styles but also a novel area for economists to explore. In this seminar, students will present research papers on related topics including two-sided market, price dispersion, information congestion, search engine pricing, and so on.
Expected competences acquired after completion of the module	Students should acquire good understanding of business organization on Internet and be able to analyze them using economics models.
Further information	-
Expected number of students in class	10
Contact information	Name: Anton Sobolev, Ph.D.; Email: anton.sobolev@uni-mannheim.de

Module number and title	E599 Empirical Environmental Economics
Form and usability of the module	Elective course for M.Sc. Economics

Responsible teacher of the module	Dr. Kathrine von Graevenitz
Cycle of offer	Each fall semester
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation.
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Presentation (40%), report (40%), and classroom discussion (20%)
Goals and contents of the module	This seminar covers recent empirical research in environmental economics. The reading list for the class will focus on a particular research topic in environmental economics, such as climate policy or air pollution control. Each student will present a paper chosen from the list to the class and write a report critiquing the paper. Emphasis will be on identifying the central questions addressed in the paper, evaluating the methodology and data, and making suggestions for improvements and extensions.
Expected competences acquired after completion of the module	Ability to present academic research to semi-expert audience, ability to critically reflect on academic research, and to articulate criticism and suggestions for improvement.
Further information	-
Expected number of students in class	10
Contact information	Name: Dr. Kathrine von Graevenitz; Email: Kathrine.vonGraevenitz@zew.de

Module number and title	E5020 Topics in Empirical Microeconomics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Michelle Sovinsky, Ph.D.
Cycle of offer	Irregular
ECTS credits	5

Teaching method (hours per week)	Block seminar (2)
Workload	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation.
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Presentation (50%) and paper (50%)
Goals and contents of the module	This course is intended for master's students interested in conducting research in empirical microeconomics. Students will be required to write a paper on a topic in the field and present it during the class.
Expected competences acquired after completion of the module	Students will be familiar with recent research in empirical IO and will be able to provide constructive criticism of work and gain skills in presenting.
Further information	Paper topics will be selected from current publications in empirical microeconomics.
Expected number of students in class	15
Contact information	Name: Prof. Michelle Sovinsky, Ph.D.; Email: msovinsky@econ.uni-mannheim.de

Module number and title	E5061 Firms in the Aggregate Economy
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Dr. Jan Schymik
Cycle of offer	Irregular
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation.
Course language	English
Prerequisites	E601-603 (or equivalent)

Grading	Term paper (60%) and presentation (40%)
Goals and contents of the module	The seminar covers topics around the implications of firms on aggregate economic activity. In particular, the seminar focuses on firm-level determinants of globalization, growth, inequality, and productivity.
Expected competences acquired after completion of the module	The students will acquire the ability to understand and critically evaluate academic articels in the field. They will improve their competencies in scientific writing and further their presentation skills by presenting an academic paper.
Further information	-
Expected number of students in class	10
Contact information	Name: Dr. Jan Schymik; Email: jschymik@mail.uni-mannheim.de

Module number and title	E5105 Market Design for the Energy Transition
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Achim Wambach, Ph.D.
Cycle of offer	Once
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation.
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Seminar presentation (20 min + 10 min discussion, 50%) + report (50%, 22000 characters including spaces)
Goals and contents of the module	The seminar covers recent research on market design for the energy transition, focusing on theoretical and empirical studies with policy relevance. Based on theoretical considerations and empirical findings in the literature, different market design options are to be identified and evaluated. Topics include research on carbon pricing, energy spot markets, markets for ancillary services, renewable energy support, coal phase-out, smart grid, and consequences for health and redistribution.

Expected competences acquired after completion of the module	Students have gained knowledge in recent developments in market design for the energy transition. They can apply their expertise and methods to analyze and evaluate ongoing debates in both the academic and the policy-oriented literature. The students have broadened their analytical and empirical abilities as well as their presentation and discussion skills.
Further information	-
Expected number of students in class	10
Contact information	Name: Dr. Mation Ott; Email: marion.ott@zew.de

Module number and title	E5106 Historical Economic Development
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Philipp Ager, Ph.D.
Cycle of offer	Irregular
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Seminar paper (50 %), presentation (40%), and classroom discussion (10%)
Goals and contents of the module	This course uses a historical and comparative approach to understanding the evolution and development of societies. We will examine research that asks whether differences in economic development today have historical roots. Our focus will be on discussing recent and classical studies that analyze the underlying forces that led to industrialization and sustainable growth in Europe and North America. In addition, we will study different mechanisms and channels through which history matters. Particular focus will be on articles that look for direct evidence on path dependence, the role of institutions, technological change and innovation. While the material covered in the course is grounded in the field of economic history, there is a natural overlap with other fields in economics, such as development economics, economic geography and political economy.

Expected competences acquired after completion of the module	Participants of this seminar will acquire a deeper understanding of a well-established literature that studies historical events to understand why some countries today are so rich and others are still so poor. The students will learn to critically evaluate research papers. They will engage in academic discissions in-class. Finally, they will improve their presentation skills and they will learn how to handle feedback and questions from their peers in class.
Further information	-
Expected number of students in class	10
Contact information	Name: Prof. Philipp Ager, PhD; Email: pager@uni-mannheim.de. Office hours: upon appointment

Module number and title	E5107 Financial Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Dr. Ernst Ludwig von Thadden
Cycle of offer	Once
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation.
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	Term paper (70%) + presentation (30%)
Goals and contents of the module	This course covers advanced topics in corporate finance by discussing important research papers. We focus on two forms of failures in financial markets, asymmetric information and moral hazard. We will discuss how these market failures affect firms' investment and financing decisions and how to use the theory to understand the practice in financial markets.
Expected competences acquired after completion of the module	Upon successful completion of the module, the students should understand the fundamental questions of corporate finance: how firms make investment and financing decision. From a positive perspective, they will be able to understand the practice in financial markets. From a normative perspective, they will be able to discuss the necessity of regulation in

	financial markets. In addition, they will also acquire the necessary tools to understand more advance corporate finance models.
Further information	The seminar will take place digitally live. The reading list will be provided at a later stage.
Expected number of students in class	10
Contact information	Name: Zaici Li, Ph.D.; Phone: (0621) 181 - 1912; email: z.li@uni-mannheim.de; Office: L7, 3-5, room 3.03; Office hours: upon appointment

Module number and title	E5108 Microeconomics and Wikipedia
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Dr. Peter Duersch
Cycle of offer	Once
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation.
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading	40% Wikipedia page, 30% presentation, and 30% short term paper
Goals and contents of the module	Seminar participants will choose a microeconomic topic (e.g. from the fields of game theory, behavioral economics, or institutional economics) which is not represented on Wikipedia and create a Wikipedia page for this topic. The goal of the seminar is to create pages of a quality high enough to publish in the main namespace of Wikipedia and serve as encyclopedic articles.
Expected competences acquired after completion of the module	Seminar participants are expected to learn how to conduct literature research for a chosen topic and how to select appropriate seminal papers from a wide literature. They will learn to write both for a scientific audience (via the term paper) and for a general encyclopedic audience (via the Wikipedia page). Participants will additionally learn about the Wikipedia editor, Wikipedia conduct guidelines, and how to present their results to a live audience.
Further information	-

Expected number of students in class	10
Contact information	Name: Dr. Peter Duersch; Phone: (0621) 181-3072; Email: duersch@uni-mannheim.de; Office: L7, 3-5, room 3.46; Office hours: upon appointment

Additional Courses for Economists

Module number and title	E5051 Mannheim Competition Policy Forum
Form and usability of the module	Compulsory course for Master in Economics with specialization Competition and Regulation Economics, elective course for Master in Economics with specialization Economics
Cycle of offer	Each semester
Course language	English
Goals and contents of the module	The last couple of years have seen a remarkable increase in the application of economic insights to competition problems. In order to further promote and refine this development, practitioners need to understand how microeconomics can help to shed light on particular aspects of competition problems. At the same time, academics benefit from a better understanding of real-world challenges and institutional details. The forum aims at providing a platform for the discussion of recent cases, general competition policy issues, and relevant academic research in the field. Renowned practitioners and academics will be invited to present their views on cases and general policy questions, followed by a discussion of the economic implications with the audience. Starting from the fall semester 2017, the MCPF is an official part of two master's programs at the University of Mannheim. Participation is compulsory for economics students in the competition and regulation track and for law students in the master on competition and regulation law.