

Master of Science Economics

University of Mannheim

Course catalog fall 2024

The schedule of the introductory phase and the specialization phase as well as information on the course registration and links to the course pages in <u>Portal²</u> can be found in our <u>online course catalog</u>.

Additional courses at Heidelberg University: Within the scope of the cooperation agreement with the Alfred Weber Institute for Economics of Heidelberg University students may contribute up to a total of 40 ECTS credits from elective modules of the master's program Economics (area MScE 2b) and from the master's thesis. Participation requires a Heidelberg University matriculation number. For more information please visit the <u>information website for non-AWI students</u>.

Additional courses outside economics: Students may contribute up to a total of 16 ECTS credits from the following master's programs of the University of Mannheim: Mannheim Master in Management (area Business Administration), M.Sc. Political Science, M.Sc. Sociology, M.Sc. Business Mathematics, Master of Law, and Competition Law and Regulation (LL.M.) (for students in study track 2: Competition and Regulation Economics only). Additional 8 ECTS credits may be granted upon request.

Contents

Preparatory course: E600 Mathematics	2
Introductory phase	3
E601 Advanced Microeconomics	3
E602 Advanced Macroeconomics	4
E603 Advanced Econometrics	5
Spezialization phase: lecture courses	6
E508 Multiple Time Series Analysis	6
E5008 Economic Policy and the Financial System	6
E5024 Poverty and Inequality	7
E5026 Programming in Stata	8
E5040 Impact Evaluation and Causal Inference	9
E5049 Topics in Macroeconomics and Labor Markets	10
E5064 Empirical Methods in Competition Policy	10
E5087 Banking and Banking Regulation	11
E5090 Internet Economics	12
E5100 Economic History	13
E5116 Programming Course for Economists	13
E5119 Spatial Data Management and Analysis	14
E5124 Household Finance	15
E5126 Urban Economics	16
Spezialization phase: seminar courses	17
E568 International Macroeconomics	17
E572 Topics in Information Economics	17
E597 Topics in Development Economics	18
E599 Empirical Environmental Economics	19
E5060 Interdisciplinary Competition and Regulation Seminar	19
E5006 Topics in Empirical Industrial Organization	20
E5091 Matching Theory Based Market Design	20
E5106 Historical Economic Development	21
E5113 Optimal Corrective Taxes and Bans	22
E5118 IO of Food and Nutrition	22
E5120 Topics in Econometrics	23
E5125 Topics in Household Finance	23
Specialization Phase: E5998 Internship	25
Research phase	26
E5999 Master's Thesis	26
E8999 Master's Thesis (Dissertation Proposal)	27
Additional course: E5051 Mannheim Competition Policy Forum	28

Preparatory course: E600 Mathematics

Form and usability of the module: Preparatory module for M.Sc. Economics Responsible teacher of the module: Johannes Gessner Cycle of offer: Every fall semester Course language: English Prerequisites: Basic knowledge in logic and set theory (please read Chapter 0, available on the course website). 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 module 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

The 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 semester master modules.

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. More information on the course structure can be found on the course website. 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 to have a look at many of them before you buy any to find one which best suits your personal needs.

Introductory phase

The descriptions of modules of the module combination "Economic Research Preparatory Courses" can be found in the <u>CDSE course catalog</u> on the website of the Graduate School of Economic and Social Sciences.

E601 Advanced Microeconomics

Form and usability of the module: Core module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics

Responsible teacher of the module: Prof. Dr. Henrik Orzen + Prof. Dr. Ernst-Ludwig von Thadden Cycle of offer: Each fall semester

ECTS credits: 10

Teaching method (hours per week): Lecture (4) + exercise (2)

Workload: 300 working hours, containing 63 hours in class and 237 hours independent study time 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 and ECTS credits: Written exam (120 min)

Goals and contents of the module: The course is a foundational course for the whole Master 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:

- Advanced 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 advanced 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
- 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
- Hammond, Peter and Knut Sydsaeter: Essential Mathematics for Economic Analysis

Contact information:

Prof. Dr. Henrik Orzen; Email: henrik.orzen@uni-mannheim.de Prof. Dr. Ernst-Ludwig von Thadden; Email: vthadden@uni-mannheim.de

E602 Advanced Macroeconomics

Form and usability of the module: Core module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation 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 working hours, containing 63 hours in class and 237 hours independent study time Course language: English Prerequisites: Good working knowledge of calculus (constrained optimization, multivariate Taylor expansion, geometric series) Grading and ECTS credits: Written 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 microfounded 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:

- Introduction to the methodology. Scientific method in Macroeconomics. Ockham's razor. Lucas critique.
- Building block of models. Preferences, production. Optimization problems of agents.
- Permanent-income hypothesis. Lifecycle consumption. Permanent vs. transitory shocks. Public pensions in life-cycle economies. Consumption search and life-cycle prices. Consumption retirement puzzle.
- Fiscal stimulus programs. Wealthy hand-to-mouth households.
- Public debt in overlapping-generations economies.
- (If time permits) Solow growth model vs. Piketty growth model.
- Introduction to dynamic programming.
- Optimal stochastic growth model.
- McCall labor search.

Expected competences acquired after completion of the module: Completion of this course is a core requirement for our Master programs 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.

Contact information: Prof. Krzysztof Pytka, Ph.D.; Email: pytka@uni-mannheim.de

E603 Advanced Econometrics

Form and usability of the module: Core module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Markus Frölich Cycle of offer: Each fall semester ECTS credits: 10 Teaching method (hours per week): Lecture (4) + exercise (2) Workload: 300 working hours, containing 63 hours in class and 237 hours independent study time Course Language: English Prerequisites: Undergraduate level of econometrics Grading and ECTS credits: Written exam (120 min, 100%)

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:

- Econometrics; Bruce E. Hansen; University of Wisconsin; https://www.ssc.wisc.edu/~bhansen/econometrics/
- Wooldridge (2010): Econometric Analysis of Cross Section and Panel Data. MIT Press.

Contact information: Name: Anja Doster; Email: anja.dostert(at)uni-mannheim.de

Spezialization phase: lecture courses

The descriptions of modules for study track 3: Economic Research can be found in the <u>CDSE course</u> <u>catalog</u> on the website of the Graduate School of Economic and Social Sciences.

E508 Multiple Time Series Analysis

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation 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, containing 42 hours time in class and 243 hours independent study time Course language: English Prerequisites: E601-603 or equivalent 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. We will also cover structural VAR models and VAR models with unit roots. If time permits, we may further deal with factor models or high-dimensional VARs. 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: 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. The list of covered research papers will be provided at the beginning of the course.

Contact information: Carsten Trenkler, Tel. 181-1851, E-mail: trenkler<at>uni-mannheim.de

E5008 Economic Policy and the Financial System

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Hans Peter Grüner Cycle of offer: every fall semester ECTS credits: 7 Teaching method (hours per week): Lecture (2) + exercise (1) Workload: 210 hours, containing 31.5 hours class time and 178.5 hours independent study time Course language: English Prerequisites: E601-E603 (or equivalent) Grading: First draft of slides for case presentation (10%), case presentation (30%, 30 minutes), 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 the financial system. I first 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 useful in practice. We analyze the role of financial intermediaries and the future role that they may play in the context of the emergence of disintermediation and big tach banking. Next, we turn to cases in which financial markets fail to work properly, and we discuss appropriate policy responses. The rest of the course is devoted to the analysis of fiscal and monetary policy measures that affect financial markets and to the design of a new financial and economic architecture in Europe. Course structure:

- Analytical instruments and fundamental results in economics
- Games, experiments and the design of rules for society
- Financial intermediation and financial stability
- Financial market imperfections and inequality I
- Financial market imperfections and inequality II
- Fiscal sustainability
- Monetary policy institutions
- 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: The planned maximum number of students is 12. All students must apply for participation until 26 August, 9 a.m. via lswipol(at)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 27 August.

Contact information: Astrid Reich; Email: lswipol@uni-mannheim.de

E5024 Poverty and Inequality

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Dr. Johanna Gather, Dr. Viviana Urueña Cycle of offer: Each fall ECTS credits: 9 Teaching method (hours per week): Lecture (2) + exercise (2) Workload: 270 hours, containing 42 hours class time and 228 hours independent study time Course language: English Prerequisites: E601- 603 (or equivalent). A background in development economics and Stata is helpful. Grading and ECTS credits: Presentation (20 min during tutorial, 20%), assignments (50%), and written 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
- The Behavioral Economics of Poverty
- Concepts and Measurements of Inequality
- Inequality and Gender
- Does Inequality Cause Growth?
- Pro-Poor Growth
- Poverty and Inequality in High-Income Countries
- Economic Mobility
- Recap

Expected competences acquired after completion of the module: The students will become acquainted with topics related to poverty alleviation and inequality measurements. They will also learn how to synthesize, interpret regression tables, critically review, and discuss peer-reviewed papers in the field. In addition, students will improve their presentation skills and will learn how to handle feedback and questions from their peers in class. Last, students will extend their programming skills by calculating inequality indexes and poverty measures in Stata.

Contact Information: Dr. Johanna Gather; Email: johanna.gather(at)uni-mannheim.de

E5026 Programming in Stata

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation 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) and exercise (1) Workload: 285 hours, containing 42 hours class time and 243 hours independent study time Course language: English Prerequisites: E601-603 (or equivalent) Grading: Final exam (90 min, 100%)

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: Cameron, A., & Trivedi, P. (2022). Microeconometrics using Stata. (Second ed.)

Contact information:

Dr. Nicholas Barton; Email: nibarton(at)mail.uni-mannheim.de Dr. Ingo Steinke; Email: isteinke(at)rumms.uni-mannheim.de

E5040 Impact Evaluation and Causal Inference

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Markus Frölich Cycle of offer: Each fall semester ECTS Credits: 7 Teaching method (hours per week): Lecture (2) + exercise (1) Workload: 210 hours, containing 31.5 hours class time and 178.5 hours independent study time Course language: English Prerequisites: E601-603 (or equivalent) Grading: Written exam (120 min, 100%)

Goals and contents of the module: This course will introduce students to theory and methods of modern impact evaluation. Topics will include counterfactual outcomes, heterogeneous treatment effects, (propensity) score matching, differences in differences, instrumental variables designs, randomized control trials, and regression discontinuity design.

Expected competences acquired after completion of the module: The students are able to apply the main econometric models and estimators for impact evaluation and causal inference and are able to analyze and judge causal inference identification strategies.

Further information: Impact Evaluation (Frölich, Sperlich, 2019, Cambridge University Press)

Contact Information: Anja Dostert; Email: dostert(at)uni-mannheim.de

E5049 Topics in Macroeconomics and Labor Markets

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Anne Hannusch, Ph.D. Cycle of offer: Irregular ECTS credits: 5 Teaching method (hours per week): Lecture (2) Workload: 150 hours, containing 21 hours class time and 129 hours independent study time Course language: English Prerequisites: E601-603 (or equivalent) Grading and ECTS credits: Final Exam (90 min, 60%), and problem sets (5-10 pages, 40%)

Goals and contents of the module:

In this course, we will summarize selected empirical observations on wages, earnings, income, consumption and wealth from cross-sectional, household level data and document some empirical puzzles. We will then develop extensions of standard macroeconomic theory to explain these puzzles. The overarching theme of the course will be how public policies impact consumption, savings and time allocation decisions of different types of households. Topics will include time allocation within the household, income dynamics, joint and individual taxation, and means-tested social programs.

Expected competences acquired after completion of the module:

The course introduces students to important extensions of standard macroeconomic theory that give novel answers various policy-relevant questions. Students will also be familiar with data facts that motivate these theories.

Contact information: Anne Hannusch; Email: hannusch@uni-mannheim.de

E5064 Empirical Methods in Competition Policy

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Helena Perrone, Ph.D. Cycle of offer: Each fall semester ECTS credits: 7 Teaching method (hours per week): Lecture (2) + exercise (1) Workload: 225 hours, containing 31.5 hours class time and 183.5 hours independent study time Course language: English Prerequisites: E601-603 (or equivalent) Grading and ECTS credits: Final exam (60 min, 70%) and assignments (8 - 12 pages, 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 to E5046 Empirical Industrial Organization, this course is more focused on the practice of competition policy rather than research.

Expected competences acquired after completion of the module: 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 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. The list of articles will be presented as the subject develops.

Contact information: Prof. Helena Perrone, Ph.D.; Email: helena.perrone@uni-mannheim.de

E5087 Banking and Banking Regulation

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Ernst-Ludwig von Thadden Cycle of offer: irregular ECTS credits: 7,5 Teaching method (hours per week): Lecture (3) Workload: 225 hours, containing 31.5 hours class time and 193.5 hours for independent studies Course language: English Prerequisites: E601-603 (or equivalent); students are expected to be familiar with mathematical concepts at the level of E600 Mathematics. Grading: Final exam (120 min, 100%)

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, Fourth 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.

Contact Information: Name: Prof. Dr. Ernst-Ludwig von Thadden; Email: vthadden@uni-mannheim.de

E5090 Internet Economics

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Anton Sobolev, Ph.D. + Robin Ng, Ph.D. Cycle of offer: Irregular ECTS credits: 7 Teaching method (hours per week): Lecture (2) + exercise (1) Workload: 210 working hours, containing 31.5 hours class time and 178.5 hours independent study time and preparation for the exam Course language: English Prerequisites: E601-603 (or equivalent), advanced knowledge in Industrial Organization and Game Theory is advantageous. Grading and ECTS credits: 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.

Contact Information:

Anton Sobolev, Ph.D.; Email: anton.sobolev@uni-mannheim.de Robin Ng, Ph.D.; Email: robin.ng@uni-mannheim.de

E5100 Economic History

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation 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, containing 42 hours class time and 228 hours for independent studies, exercises and exam preparation. Course language: English Prerequisites: E601-E603 (or equivalent) Grading: Written exam (100 min, 70%), presenting + discussing a paper (20 min, 20%), active participation (10%).

Goals and contents of the module: Economic history is important for understanding long-run economic development and to study the question, why some countries became rich, while others remained poor. In this course, we focus on selected topics of quantitative economic history that have been explored by economists and economic historians in recent years. Topics include trade, the role of institutions in economic development, religion, human capital, innovation, market integration, financial development, inequality, migration, epidemics, and climate change. The weekly lecture (2 hours) will give you an overview on recent empirical research on each topic. In the weekly exercise sessions (2 hours), we will then discuss key research papers in more depth. Each student is required to presents a critical discussion of one research paper. The presentation accounts for 20% of the final grade, and the participation in class 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 quantitative economic history. They will be able to apply their knowledge of econometrics in analyzing research questions in economic history and discuss potential policy implications, for example with respect to development policies. The course also aims at enabling students to critically evaluate empirical research designs that 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/).

Contact: Dr. Alexander Donges; Email: donges@uni-mannheim.de

E5116 Programming Course for Economists

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Bernhard Ganglmair Cycle of offer: Irregular ECTS credits: 2.5 Teaching method (hours per week): Lecture (1) Workload: 75 working hours, including 10.5 hours of class time and 64.5 hours for independent studies Course language: English Prerequisites: E601-603 (or equivalent) Grading: Course paper (100%)

Goals and contents of the module: This course aims to introduce students to the essential tools of text analysis (or: natural language processing, NLP). It turns unstructured text into quantitative data used for empirical research in economics, management science, and many other fields. We will use R for most of the course and Python to showcase some machine learning applications with text data at the end of the semester. Topics:

- Working with text: regular expressions/regex text parsing parts-of-speech tagging webscraping - dictionaries
- Text as data: word-embeddings (from bag-of-words to word2vec/GloVe) topic models sentiment analysis text-similarity
- ML with text (in Python): ML fundamentals BERT text-classification We will use recent economics and management science literature applications to illustrate methods and concepts.

Expected competences acquired after completion of the module: Students will be equipped with the basic concepts and programming skills (in R) to undertake independent text analysis projects. In addition, they will further be familiar with the resources needed to build on these basic concepts and dive deeper into an ever-growing literature.

Further information: We will dedicate the first two units to an introduction to R for those students who have no or limited prior experience with R. Students should bring their own laptops.

Contact information: Prof. Dr. Bernhard Ganglmair, Email: ganglmair@uni-mannheim.de

E5119 Spatial Data Management and Analysis

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Kathrine von Graevenitz, Ph.D. Cycle of offer: Irregular ECTS-Credits: 2.5 Teaching method: Lecture (1) Workload: 75 working hours, including 10.5 hours of class time and 64.5 hours for independent studies, programming project, and project paper Course language: English Prerequisites: E601-603 (or equivalent), coding experience in R is beneficial Grading: Presentation (15 min, 70%), presentation slides and code (30%), the course will be graded pass/fail.

Goals and contents of the module: This short-course provides an introduction to spatial data. We will discuss what is special about spatial data, introduce software to handle it, and learn to merge data and create simple maps. We will do simple spatial econometric analyses (correlations and regressions) and discuss spatial regression discontinuity research designs. We will also talk about how to geo-code data. The course is intended for students approaching their master's thesis to get them started with independent research using spatial data.

Expected competences acquired after completion of the module: Students will acquire an understanding of what spatial data is. They will also gain first insights into open source software used for spatial data (QGIS and R).

Further information: The course is limited to 12 participants. If necessary, students will be selected by lottery with preference for students in higher semesters. Further details will be discussed in the organizational meeting in September.

Contact information: Kathrine von Graevenitz; Email: Kathrine.vonGraevenitz@zew.de

E5124 Household Finance

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Claes Bäckman, Ph.D. Cycle of offer: Irregular ECTS credits: 9.5 Teaching method (hours per week): Lecture (3) + exercise (1) Workload: 285 hours, containing 42 hours time in class and 243 hours independent study time Course language: English Prerequisites: E601-603 (or equivalent) Grading: Written exam (120 min, 70%) and hand-in assignment (5 – 10 pages, 30%)

Goals and contents of the module: The course focuses on understanding household consumptionsavings behavior and heterogeneity in household behavior, a key feature of modern macroeconomics. We will start by briefly introducing life-cycle models of consumption and savings decisions to provide a theoretical foundation and study what these models predict for consumption, savings, portfolio choice, and wealth accumulation. The main goal of the course is to study how consumption empirically responds to different shocks: we will cover how consumption responds to shocks to income, wealth, and interest rate shocks, again focusing on differences across households. The empirical methods discussed in the course consist of credible, quasi-experimental research designs such as difference-in-difference, instrumental variables, and experiments. We will use recent research papers to illustrate how these methods are used in cutting-edge research today. In the final part of the course, we will focus on why different households respond differently to shocks by studying, for example, wealth inequality or participation in asset markets. The course is based on cutting-edge research papers in economics and finance.

Expected competences acquired after completion of the module: In this course, students will:

- Increase their knowledge of household finance by reading, comparing, and criticizing articles on topics highly relevant to policymakers and the general public.
- Use skills learned in other courses in microeconomics, financial economics, and microeconometrics to understand relevant problems faced by households today, and to critically assess recent articles
- Learn to understand and evaluate empirical strategies used to identify causal effects using econometrics and policy evaluation skills.
- Attain more knowledge of recent trends in topics and methods used in household finance, which is useful for their own research.
- Learn to identify unanswered questions and extensions of articles to be able to conduct research into new topics.
- Improve their communication and presentation skills.

Further information: The complete reading list is announced at the start of the course.

Contact information: Prof. Claes Bäckman, Ph.D.; Email:

E5126 Urban Economics

Responsible teacher of the module: Prof. Ana Moreno-Maldano, Ph.D. Cycle of offer: Irregular ECTS credits: 5 Teaching method (hours per week): Lecture (2) Workload: 150 hours, containing 21 hours class time and 129 hours independent study time Course language: English Prerequisites: E601-603 (or equivalent) Grading and ECTS credits: Presentation (30 min, 50%), assignment (4-8 pages, 50%)

Goals and contents of the module: The objective of the course is to introduce the students to active research areas in Urban Economics. We will study a set of models and tools that are commonly used in the field, and will cover recent papers, both theoretical and empirical. We will study the spatial distribution of economic activity when labor is mobile across locations. Our fundamental tool will be the notion of a spatial equilibrium in which not only final goods but also factors of production can move across space and choose their optimal location. We will focus on agglomeration economies: the advantages that result from eliminating the distance between people. We will consider how density facilitates the transportation of goods, the sharing of inputs and the matching between workers and employers. Looking at cities, we will study the problem of workers' choices of their residential and workplace locations, as well as the sorting of different skill groups within and across cities.

Expected competences acquired after completion of the module: Students will feel comfortable reading journal articles at the frontier of modern economic research in Urban Economics. They will also become familiarized with spatial equilibrium models.

Further information: The complete reading list for presentation is announced at the start of the course. Student presentations will be distributed across the semester. If there is enough interest in the class, the assignment will cover solving a spatial equilibrium model in Matlab.

Contact information: Prof. Ana Moreno-Maldano, Ph.D.; Email: ana.moreno@uni-mannheim.de

Spezialization phase: seminar courses

E568 International Macroeconomics

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Jan Schymik Cycle of offer: irregular ECTS credits: 5 Teaching method (hours per week): Blockseminar (2) Workload: 150 working hours for organizational meeting, block seminar, and preparation of the seminar paper and presentation. Course language: English Prerequisites: E601-603 Grading: term paper (12 - 14 pages, 50%), presentation (45 min, 40%) + discussion and oral participation (10%)

Goals and contents of the module: The seminar deals with the macroeconomics of open economies. Covered topics include (i) the foreign exchange market and the determination of exchange rates in international money markets; (ii) determinants of the trade balance, national income, the balance of payments, money flows, and interest rates; (iii) capital flows in integrated financial markets; monetary and fiscal policy in open economies; (iv) international macroeconomic interdependence and policy coordination; (v) supply-chain relationships. Expected competences acquired after completion of the module: The students will acquire the ability to understand and critically evaluate academic articles in the field. They will improve their competencies in scientific writing and further their presentation skills by presenting an academic paper.

Expected competences acquired after completion of the module: The students will acquire the ability to understand and critically evaluate academic articles in the field. They will improve their competencies in scientific writing and further their presentation skills by presenting an academic paper.

Contact Information: Prof. Dr. Jan Schymik; Email: jschymik@mail.uni-mannheim.de

E572 Topics in Information Economics

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Francisco Poggi, 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 min, 60%), seminar paper (8 - 10 pages, 30%), and classroom discussion (10%). Goals and contents of the module: This seminar is aimed at Ph.D. candidates and advanced master students with a strong interest in economic theory. Participants will discuss recent research papers that use advanced tools and theoretical methods to answer questions in information economics. The papers will cover a wide range of topics, with a focus on the areas of experimentation and information acquisition.

Expected competences acquired after completion of the module: Upon completion of this module, students will gain proficiency in tools for solving dynamic games and static decision problems. Moreover, students will develop their ability to identify and evaluate research questions in information economics. Finally, students will improve their writing, presentation, and discussion skills, enabling them to effectively communicate complex ideas and contribute to scholarly debates.

Contact Information: Prof. Francisco Poggi, Ph.D.; Email: poggi@uni-mannheim.de

E597 Topics in Development Economics

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Minki Kim, Ph.D. Cycle of offer: Irregular ECTS credits: 5 Teaching method (hours per week): Blockseminar (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 min, 50%), paper (8 - 10 pages, 40%), and classroom discussion (10%)

Goals and contents of the module: This seminar will focus on the determinants of differences in real income per capita across countries. The literature has so far concluded that human capital and physical capital explain around 50% of the cross-country income differences, and the rest is attributed to differences in total factor productivity (TFP). In this seminar, we will explore key papers in each of these three components. The papers in the reading list are attempting to answer the following questions:

- To what extent do poor countries have lower human capital / physical capita / total factor productivity? Why?
- How can we improve on each of these dimensions?

Topics will include the role of human capital in explaining cross-country income differences, misallocation of total factor productivity, health and economic growth, (barriers to) technology adoption and diffusion, and infrastructure and development. The reading list will be distributed in the first week of the semester. Students are required to pick a paper from the reading list and give a presentation in the seminar. Moreover, students will write a seminar paper that summarizes and critically evaluates the chosen paper. The presentation will take place in mid-April on two consecutive days (subject to change depending on the class size). Seminar papers are due by May 24th.

Expected competences acquired after completion of the module: Learn about recent papers, summarize and critically evaluate them. Students will improve their critical thinking, their communication skills and writing skills.

Expected number of students in class: 10

Contact Information: Prof. Minki Kim, Ph.D.; Email: minki.kim@uni-mannheim.de

E599 Empirical Environmental Economics

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Kathrine von Graevenitz Cycle of offer: only in fall ECTS-Credits: 5 Teaching method (hours per week): Blockseminar (2) Workload: 150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation Course language: English Prerequisites: E601- E603 (or equivalent) Grading and ECTS credits: Presentation (30 min, 40%), report (6 - 8 pages, 40%), 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.

Contact information: Prof. Dr. Kathrine von Graevenitz; Email: Kathrine.vonGraevenitz@zew.de

E5060 Interdisciplinary Competition and Regulation Seminar

Form and usability of the module: Compulsory module for M.Sc. Economics in study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Volker Nocke + Prof. Dr. Jens-Uwe Franck ECTS credits: 5 Teaching method (hours per week): Blockseminar (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: Written report (25 – 30 pages, 30%), presentation (90 minutes, 50%), 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.

Contact information: Prof. Volker Nocke, Ph.D.; Email: volker.nocke@uni-mannheim.de

E5006 Topics in Empirical Industrial Organization

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Michelle Sovinsky ECTS credits: 5 Teaching method (hours per week): Blockseminar (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 term paper (50%)

Goals and contents of the module: This course is intended for masters students interested in conducting research in empirical industrial organization. Students will be required to write a paper and present a published paper 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 industrial organization.

Contact information: Prof. Michelle Sovinsky, Ph.D.; Email: msovinsky@econ.uni-mannheim.de

E5091 Matching Theory Based Market Design

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Achim Wambach Cycle of offer: only in fall ECTS-Credits: 5 Teaching method (hours per week): Blockseminar (2) Workload: 150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation Course language: English Prerequisites: E601- E603 (or equivalent) Grading and ECTS credits: Presentation (30 min, 50%), report (22,000 characters including spaces, 50%)

Goals and contents of the module: The seminar covers the most prominent market design applications rooted in matching theory. The purpose of this seminar is to let students present research papers on market design, get familiar with the state of art in the field and inspire their own research in this area.

Expected competences acquired after completion of the module: Students have gained knowledge about the most prominent matching based market design applications. 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 abilities as well as their presentation and discussion skills.

Additional teachers: Gian Caspari, Ph.D.

Contact information: Gian Caspari, Ph.D.; Email: gian.caspari@zew.de

E5106 Historical Economic Development

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Philipp Ager, Ph.D. ECTS credits: 5 Teaching method (hours per week): Blockseminar (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 min, 50%), leading discussion (15min, 20%), seminar paper (3-5 pages, 20%), 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: The reading list will be provided in the first meeting. Presentations will be on two consecutive days in November.

Contact information: Prof. Philipp Ager, PhD; Email: pager@uni-mannheim.de

E5113 Optimal Corrective Taxes and Bans

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Dr. Andreas Gerster Cycle of offer: Irregular ECTS credits: 5 Teaching method (hours per week): Blockseminar (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 and ECTS credits: Seminar paper (8 - 12 pages, 50%), presentation (30 min, 30%), classroom discussion (20%)

Goals and contents of the module: In recent years, policy makers have increasingly made use of taxation in order to steer consumers' decisions into socially desirable directions. Corrective taxation has been applied in settings where consumers disregard the impact of their decision-making on other consumers (externalities) and when they make mistakes in their decision-making process (internalities). Prominent examples include the taxation of carbon emissions and of so-called sin goods such as cigarettes and sugar. Drawing on empirical and theoretical research, this seminar analyzes the optimal design of corrective taxation. The theoretical papers covered investigate the rationale of optimal externality and internality taxes and explore how such taxes can improve efficiency. We will also discuss how a concern about the distributional implications of corrective taxes affects optimal taxation formulas. The empirical papers covered in the seminar aim at empirically quantifying optimal corrective taxes or subsidies in settings such as energy efficiency investments, carbon emissions, and sin good consumption. Students will write a 10-page paper on a particular aspect and present their work in class.

Expected competences acquired after completion of the module: Students will have to write a research paper of at least 10 pages on a clearly defined topic within the context of the seminar topic. This helps them to develop their skills of in terms of absorbing the current literature and in terms of academic writing, both of which will be useful to them when working on their master's thesis. Moreover, students will have to present their paper in class to their fellow students in a clear and succinct way. Finally, students learn how to engage in a scientific debate. All of the above skills are of outstanding importance in many professional careers for economics graduates, especially so in English, the language of instruction for this class.

Contact Information: Prof. Dr. Andreas Gerster; Email: gerster@uni-mannheim.de

E5118 IO of Food and Nutrition

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Helena Perrone, Ph.D. Cycle of offer: Irregular ECTS credits: 5 Teaching method (hours per week): Blockseminar (2) Workload: 150 working hours for organizational meeting, block seminar, and preparation of the seminar paper and presentation. Course language: English Prerequisites: E601-603 (or equivalent) Grading: Presentation (60%), seminar paper (25%) and classroom discussion (15%)

Goals and contents of the module: The main objective of the course is to familiarize students with relevant empirical papers focused on food markets that study issues related to firm competition, pricing dynamics, vertical relations, etc., and the effects of different public policies on consumer nutritional choices. We will also Furthermore, the course aims at developing students critical skills and presentation skills, as well as fostering discussion on the topics included in the module.

Expected competences acquired after completion of the module: The students can define and interpret the main characteristics, limits, and terminology used in the empirical literature on food markets and nutrition. They can evaluate a paper's contribution to the general literature and identify the weaknesses and strengths of the scientific paper they chose to study. The students can integrate knowledge from different fields (Industrial Organization, Econometrics, Public Policy, etc.).

Contact Information: Prof. Helena Perrone, Ph.D.; Email: helenaperrone@gmail.com

E5120 Topics in Econometrics

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Prof. Mengshan Xu, Ph.D. Cycle of offer: Each fall term ECTS credits: 5 Teaching method (hours per week): Blockseminar (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), recommended: E5019 and E5095 (or equivalent) Grading: Presentation (45 - 60 min, 50%), seminar paper (5 - 20 pages, 50%)

Goals and contents of the module: This seminar focuses on recent research developments in Econometrics, covering both theoretical and applied aspects. Each student is required to present a paper selected from the reading list and write a course paper (ranging from 5 to 20 pages) on a topic related to the subject of their presentation. The course paper may be structured as a discussion paper or an empirical application of an econometric method.

Expected competences acquired after completion of the module: The students will develop the capability to comprehend and critically assess academic articles within the field. This will enhance their proficiency in scientific writing. Additionally, by presenting an academic paper, they will further refine their presentation skills.

Contact information: Prof. Mengshan Xu, Ph.D.; Email: Mengshan.Xu(at)uni-mannheim.de

E5125 Topics in Household Finance

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics Responsible teacher of the module: Claes Bäckman, 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 (45 minutes, 40%), report (5 - 8 pages, 50%), classroom discussion (10%)

Goals and contents of the module: The course will provide an overview of recent applied research in household finance and complement the topics discussed in the Household Finance course. After an initial and general introduction, students must pick a research paper on selected topics related to household finance and give a 30-minute presentation to discuss the article, its strengths and weaknesses. Based on their work and the comments the students receive in the presentation, students must write a summary and a referee report on the selected papers (approximately 10 pages). Potential topics are how households are inflation and household behavior, the impact of monetary policy on households, experiments in household finance, social media, peer effects and household investments, households' sustainable investments, gender differences in household finance, the impact of new technologies on household finance, and the effect of macroprudential policies on household behavior. A detailed list of topics and articles will be circulated once the seminar spots have been allocated.

Expected competencies acquired after completion of the module: In this course, students will:

- Increase their knowledge of household finance topics relevant to policymakers and the general public
- Learn how to read, compare, and critically asses top research papers in household finance
- Apply their knowledge from other courses in financial economics, econometrics and microeconomics to household finance
- Use skills developed in econometrics and policy evaluation to evaluate empirical papers that aims to identify causal effects
- Improve their verbal and written communication skills
- Attain new skills and knowledge in econometrics, writing and presenting relevant for how to conduct research into new topics

Contact information: Name: Claes Bäckman; eMail: claes.baeckman@uni-mannheim.de

Specialization Phase: E5998 Internship

Form and usability of the module: Elective module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics

ECTS credits: 6

Teaching method (hours per week): Internship

Workload: 175 internship working hours; 5 hours for the preparation of an internship report in line with the Internship Report form

Course language: Language of the internship: any; Language of documents of proof: German or English Participation requirements: Bachelor's degree

Requirements for the award of ECTS credits: Proof that the intern worked at least 175 hours, typically to be completed within a period of eight to twelve weeks; internship report (600 - 1000 words) and confirmations in accordance with the corresponding form; the internship is not graded

Goals and contents of the module: Application of specialized knowledge and approaches from the field of the economic sciences to practical problems; getting to know practical approaches relevant to the respective field of work; acquisition of key competences

Expected competences acquired after completion of the module: Upon completion of the module, students are able to apply the knowledge and understanding gained from the degree program in a professional context. They have developed and enhanced explanations and solutions in their area of work and obtained specialized knowledge relating to this field. They have reflected on work processes, evaluated them and, if applicable, (re)designed them. They have exchanged with their colleagues about information, ideas, problems and solutions and have formulated and defended positions and solutions. By completing an internship abroad, they may have developed their proficiency in a foreign language for use in business contexts.

Additional information The internship meets the requirements for mandatory internships set out in the federal regulations on employing interns dated 1 January 2015 (Praktikantenrichtlinie Bund) and the supplementary information on internships (Durchführungsrundschreiben D5-31005/1#11 dated 4 May 2020, page 4: "Sehen Studiengänge ein Praktikum als Wahlpflichtmodul (Wahl zwischen einem Praktikum oder Seminar, Hausarbeit, Forschungsaufenthalt etc.) vor und entscheidet sich eine Studentin oder ein Student für ein Praktikum, gilt dieses als Pflichtpraktikum nach dieser Richtlinie.")

Contact information: Sebastian Herdtweck; Email: econgrad@uni-mannheim.de; Office: L7, 3-5, room 405; Office hours: upon appointment

Research phase

E5999 Master's Thesis

Form and usability of the module: Compulsory module for M.Sc. Economics in study track 1: Economics and study track 2: Competition and Regulation Economics

Cycle of offer: Every semester

ECTS credits: 30

Teaching method (hours per week): Written final thesis, length to be agreed with the supervisor, typically 20 to 70 pages

Workload: 900 hours, optionally including a master's colloquium

Module language: English

Participation requirements: Completion of at least 45 ECTS credits in the specialization phase and successful completion of at least one seminar

Requirements for the Award of ECTS Credits, and Grading: The master's thesis is passed if it is graded "fair" (4.0) ("ausreichend") or better.

Goals and contents of the module: The students work independently on a topic from the fields of Economics, Statistics, Econometrics, and/or Economic History. The thesis should demonstrate the ability to identify and apply relevant theories and methods in academic research and to present the results in a linguistically and formally appropriate way. The topic, assignment, and scope of the master's thesis shall be limited by the supervisor so that its completion is possible within the given period of time.

Expected competences acquired after completion of the module: Upon completion of the module, students have demonstrated the ability to apply the knowledge and understanding gained from the degree program in a research context, in particular:

- largely independently develop a research idea and line of inquiry,
- identify and evaluate scientific literature relevant for the research topic,
- deepen and integrate specialized knowledge in the chosen field of research and independently close knowledge gaps,
- identify and apply scientific concepts and methods suitable for the respective line of inquiry,
- demonstrate profound skills in data collection, compilation, preparation, processing, and presentation,
- exchange with their supervisor about information, ideas, problems, and solutions and formulate and defend positions and solutions,
- recognize the specifics and limitations of their research,
- reflect on the results obtained scientifically, socially and, if necessary, ethically,
- present their results in a precise and consistent manner and in accordance with the formal requirements of a scientific work,
- organize their scientific work process independently and
- use English flexibly and effectively and produce clear, well-structured, detailed text on complex subjects.

Contact information: Sebastian Herdtweck; Email: econgrad@uni-mannheim.de; Office: L7, 3-5, room 405; Office hours: upon appointment

E8999 Master's Thesis (Dissertation Proposal)

Form and usability of the module: Compulsory module for M.Sc. Economics in study track 3: Economic Research

Cycle of offer: Every semester

ECTS credits: 20

Teaching method (hours per week): Written final thesis, length to be agreed with the supervisor, typically 10 to 35 pages

Workload: 600 hours

Module language: English

Participation requirements: Completion of at least 45 ECTS credits in the specialization phase

Requirements for the Award of ECTS Credits, and Grading: The master's thesis is passed if it is graded "fair" (4.0) ("ausreichend") or better.

Goals and contents of the module: The students work independently on a topic from the fields of Economics, Statistics, Econometrics, and/or Economic History. The thesis has two goals. Firstly, it should demonstrate the ability to identify and apply cutting-edge theories and methods to academic research and to present the results in a linguistically and formally appropriate way. Secondly, it should indicate the extent and nature of the student's dissertation research interests. The topic, assignment, and scope of the thesis shall be limited by the supervisor so that its completion is possible within the given period of time.

Expected competences acquired after completion of the module: Upon completion of the module, students have demonstrated the ability to apply the knowledge and understanding gained from the degree program in a research context, in particular:

- independently develop a research idea and line of inquiry,
- identify and evaluate scientific literature relevant for the research topic,
- deepen and integrate highly specialized knowledge in the chosen field of research and independently close knowledge gaps,
- identify, develop, and apply scientific concepts and methods suitable for the respective line of inquiry,
- demonstrate profound skills in data collection, compilation, preparation, processing, and presentation,
- exchange with their supervisor about information, ideas, problems, and solutions and formulate and defend positions and solutions,
- recognize and evaluate the specifics and limitations of their research with special consideration of most recent academic research,
- reflect on the results obtained scientifically, socially and, if necessary, ethically,
- present their results in a precise and consistent manner and in accordance with the formal requirements of a scientific work,
- organize their scientific work process independently and
- use English flexibly and effectively and produce clear, well-structured, detailed text on complex subjects.

Contact information: Sebastian Herdtweck; Email: econgrad@uni-mannheim.de; Office: L7, 3-5, room 405; Office hours: upon appointment

Additional course: E5051 Mannheim Competition Policy Forum

Form and usability of the module: Optional module for M.Sc. Economics Responsible teacher of the module: Prof. Dr. Martin Peitz + guest lecturers Cycle of offer: Every semester Course language: English

Goals and content 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.