UNIVERSITY OF MANNHEIM
Department of Economics

Course Catalog HWS 2017/2018

Master of Economics

Contents

Preparatory Module in Mathematics

Module number and title	**E600 Mathematics**
Form and applicability of the module	Optional precourse for Master in Economics
Duration of the module	One week before the start of semester plus every Monday in September
ECTS-Credits	
Teaching method	Lecture + Exercise
Workload	
Cycle of offer	Every fall semester
Expected number of students in class	
Course language	English
Prerequisites	Basic knowledge in logic and set theory
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 Master program without mastering what can be considered as the most basic mathematical concepts for an economics graduate student. My objective is for you to: • Grasp key concepts and 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); • Know when and how to apply the main theorems covered in this course (in particular Lagrange theorem). The plan therefore is as follows: • Introduction to vector spaces • Introduction to matrix algebra • Multivariate calculus and integral calculus • Convex Optimization • Introduction to stochastics and statistics
Expected competences aquired after completion of the module	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.
Responsible teacher of the module	Simona Helmsmüller
Additional teachers	
Requirements for the assignment of ECTS-credits and grades	
Additional information	**Literature** Lecture notes, slides, and problem sets will be uploaded on my webpage in due time: https://helmsmueller.wordpress.com/teaching/ **Additional readings:** • Carl P. Simon / Lawrence Blume (1994): Mathematics for Economists, 1st Edition. W.W. Norton & Company

Core Module

Module number and title	**E601 Advanced Microeconomics**
Form and applicability of the module	Core course for Master in Economics
Duration of the module	One semester
ECTS-Credits	10.0
Teaching method	Lecture (4 SWS) + exercise (2 SWS)
Workload	300 working hours, containing 63 hours in class and 237 hours independent study time and preparation for the exam
Cycle of offer	Every fall semester
Expected number of students in class	**Lecture:** 60 **Exercise:** 15-20 per group
Course language	English
Prerequisites	Students should be familiar with mathematical methods as covered in the preparation course E600. Some prior background in microeconomics on the level of Varian, "Intermediate Microeconomics", or Pindyck and Rubinfeld, "Microeconomics", is helpful.
Goals and contents of the module	The first part of the course gives a foundation for studies of microeconomics on a graduate level. It covers classical consumer demand under certainty, utility maximization and cost minimization, choice under uncertainty, and general equilibrium. 1. Consumer Choice (MWG Ch. 2; V) 2. Classical Demand Theory (MWG Ch. 3; V) 3. Producer Theory(MWG Ch. 3; V) 4. Choice Under Uncertainty (MWG Ch. 6; V) 5. General Equilibrium Theory (MWH, Ch. 15 and 16; V) The second part is devoted to the study of game theory and the economics of information. It first studies the fundamental of game theory, games under incomplete information, and different equilibrium refinement concepts. It then addresses principal-agent problems under asymmetric information. Two main topics are investigated: adverse selection and moral hazard. 1. Static Non-Cooperative Games (MWG Ch. 7 and 8) 2. Dynamic Non-Cooperative Games (MWG Ch. 9) 3. Adverse selection: rent extraction-efficiency trade-off (LM, Ch. 2) 4. Incentive and participation constraints with adverse selection (LM, Ch. 3) 5. Adverse selection with a continuum of types (LM, Ch. 3) 6. Moral hazard: the basic trade-offs (LM, Ch. 4) 7. Incentive and participation constraints with moral hazard (LM, Ch. 5)
Expected competences aquired after completion of the module	Students acquire knowledge of core microeconomic concepts underlying economics at the Masters level. Students also acquire skills to solve microeconomic problems in exercises.
Responsible teacher of the module	Dr. Emanuele Tarantino and Lily Ling Yang, Ph.D.
Additional teachers	TAs
Requirements for the assignment of ECTS-credits and grades	Midterm exam (60 min, 50%), final exam (60 min, 50%)
Additional information	**Recommended textbooks:** • Laffont, J.-J., Martimort, D. (2002). The theory of incentives: the principal-agent model. Princeton University Press, Princeton and Oxford (LM).

	• Mas-Colell, A., Whinston, M. D. Green, J. (1995). Microeconomic Theory. Oxford University Press (MWG). • Varian, H. (1992). Microeconomic Analysis. Northon & Company, New York and London (V).

Module number and title	**E602 Advanced Macroeconomics**
Form and applicability of the module	Core course for Master in Economics
Duration of the module	One semester
ECTS-Credits	10.0
Teaching method	Lecture (4 SWS) + exercise (2 SWS)
Workload	300 working hours, containing 63 hours in class and 237 hours independent study time and preparation for the exam
Cycle of offer	Every fall semester
Expected number of students in class	**Lecture:** 60 **Exercise:** 15-20 per group
Course language	English
Prerequisites	Good working knowledge of calculus (constrained optimization, multivariate Taylor expansion, geometric series)
Goals and contents of the module	The course familiarizes students with the essential concepts of modern macroeconomic theory at an advanced level. A particular focus will be placed on learning how to use formal microfounded models to analyze and understand both economic growth dynamics and business cycle fluctuations. In order to guide the economic modeling, the course will use empirical data to generate stylized facts about economic growth and business cycles that useful models must aim to explain, both quantitatively and qualitatively. In terms of economic models, the following topics will be covered: - Growth Theory: the Solow Model, the Ramsey-Cass-Koopmans Model, and Endogenous Growth Theory. - Business Cycles: the Real Business Cycle Model, the Classical Monetary Model, and the basic New Keynesian Model. During the course students will also learn the necessary techniques to solve dynamic stochastic models both analytically and numerically using Dynare. While the course will be mostly concerned with positive economic theory, students will also learn to derive and understand the normative and policy implications of the covered models.
Expected competences aquired 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.
Responsible teacher of the module	Krzysztof Pytka
Additional teachers	Xiaodi Wang, Andrej Alexandrov
Requirements for the assignment of ECTS-credits and grades	Written midterm exam (60min, 50%), final exam (60min, 50%), assignments (up to 10% bonus)
Additional information	The mandatory textbook chapters and articles will be announced in the lecture. The following books are good references for the topics covered:

	• Acemoglu, Daron (2008), Introduction to Modern Economic Growth, Princeton University Press • Sala-I Martin, Xavier/Barro, Robert (2003): Economic Growth, MIT Press, 2nd edition • McCandless, George (2008), The ABCs of RBCs - An Introduction to Dynamic Macroeconomic Models, Harvard University Press • Romer, David (2011): Advanced Macroeconomics, McGraw-Hill, 4th edition • King, R. Rebelo, S. (1999): Resuscitating Real Business Cycles, in: Taylor/Woodford (Hrsg.): Handbook of Macroeconomics, Vol. 1, pp. 927-1007. • Gali, Jordi (1999): Technology, Employment, and the Business Cycle: Do Technology Shocks Explain Aggregate Fluctuations?, American Economic Review 89(1), pp. 249-271 • Gali, Jordi (2008): "Monetary Policy, Inflation, and the Business Cycle", Princeton University Press • Walsh, Carl. E. (2010): Monetary Theory and Policy, MIT Press, 3rd edition

Module number and title	**E603 Advanced Econometrics**
Form and applicability of the module	Core course for Master in Economics
Duration of the module	One semester
ECTS-Credits	10.0
Teaching method	Lecture (4 SWS) + exercise (2 SWS)
Workload	240 working hours, containing 47,25 hours in class and 192,75 hours independent study time and preparation for the exam
Cycle of offer	Every fall semester
Expected number of students in class	**Lecture:** 60 **Exercise:** 15-20 per group
Course language	English
Prerequisites	Undergraduate level of econometrics
Goals and contents of the module	The goal of the module is to offer advanced treatment to 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 and Extremum 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 aquired 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
Responsible teacher of the module	Prof. Markus Frölich
Additional teachers	
Requirements for the assignment of ECTS-credits and grades	Final exam (120 min)
Additional information	**Literature** • Wooldridge (2010): Econometric Analysis of Cross Section and Panel Data. MIT Press. • Heij, De Boer, Franses, Kloek, and Van Dijk (2004): Econometric Methods with Applications in Business and Economics. Oxford University Press. • Kirchgässner, Wolters (2007): Introduction to Modern Time Series Analysis. • Kirchgässner, Wolters (2006): Einführung in die moderne Zeitreihenanalyse.

Elective Module: Lectures

Module number and title	**E504 International Trade and Tax Policy Analysis**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	one semester
ECTS-Credits	7
Teaching method	Lecture (2 SWS) + exercise (1 SWS)
Workload	210 working hours
Cycle of offer	Irregular
Expected number of students in class	15
Course language	English
Prerequisites	For Economics students: E601-603 (or equivalent); for MMM and Business Mathematics students: Business Economics I and II or equivalent
Goals and contents of the module	This course deals with trade and public policies in open economies with a focus on recent policy debates. At the same time we provide foundations for policy analysis by studying theoretical models. A tentative list of topics and questions is as follows: • How does trade affect wages and unemployment? • Is free trade good for the environment? • How do firms respond to trade liberalization? • Does trade integration increase or decrease tax competition? • Who lobbies for trade protection? • Does international trade erode culture? • Is international tax competition welfare improving? • Does globalization shrink the welfare state?
Expected competences aquired after completion of the module	Understanding of current theoretical and empirical literature on trade and tax policy; ability to critically assess policy debates on globalization; familiarity with standard theoretical trade models and important data sets**.**
Responsible teacher of the module	Prof. Dr. Eckhard Janeba
Additional teachers	
Requirements for the assignment of ECTS-credits and grades	Final exam 120 min (50%) and problem sets (50%)
Additional information	See Syllabus

Module number and title	**E526 Development Economics**
Form and applicability of the module	Elective course for Master in Economics
Duration of the Module	One semester
ECTS-Credits	5
Teaching method	Lecture (2 SWS)
Workload	90 working hours, containing 21 hours class time and 69 hours independent study time and preparation for the exam
Cycle of offer	Once (fall semester)
Expected number of students in class	15
Course language	English
Prerequisites	E601-603 (or equivalent)
General requirements	Econometrics at the Master level

Goals and Contents of the module	The purpose of this course is to provide students with analytical and empirical tools that enable them to understand the functioning of markets and institutions in Less Developed Countries (LDCs). The methodological approach emphasizes the role of information and incentives in examining from a microeconomic point of view how LDCs cope with market imperfections. Particular emphasis is placed on program evaluation and on the empirical analysis of education, health and microcredit policies. For each topic, recent theoretical contributions are proposed and compared to existing empirical evidence, in order to train the student to develop a research process that goes from the formulation to the test of hypotheses. Course content: 1. Introduction to the course 2. Program Evaluation: Theory 3. Program Evaluation: Applications 4. Education Programs and Policies in Developing Countries 5. Health Policies in Developing Countries 6. Economics of the Family 7. The Informal Sector 8. Political Economy Aspects
Expected Competences acquired after completion of the module	Students learn how to formulate hypotheses based on economic theory and how to empirically test these hypotheses using up-to-date microeconometric methods (such as program evaluation methods).
Requirements for the assignment of ECTS-Credits and Grades	Class participation (10%), one referee report (20%) and final exam (90 min, 70%)
Responsible teacher of the module	Katja Kaufmann
Further Information	List of papers discussed in class • Attanasio, O. and Kaufmann, K. (2014) "Education Choices and Returns to Schooling: Mothers' and Youths' Subjective Expectations and their Role by Gender", Journal of Development Economics. • Brollo, F., Kaufmann, K. and E. La Ferrara (2015) "Learning about the enforcement of conditional welfare programs: Evidence from Brazil", IGIER working paper. • Duflo, E. (2002), "Empirical methods", mimeo, MIT. (http://web.mit.edu/14.771/www/emp_handout.pdf) • Duflo, E. (2001) "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment", American Economic Review, 91(4), 795-813. • Duflo, E. (2003), "Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation", World Bank Economic Review, 17, 1-25. • Galiani, S., Gertler, P., Schargrodski, E. (2005) "Water for Life: The Impact of the Privatization of Water Services on Child Mortality in Argentina", Journal of Political Economy, 113, 83-120. • Kaufmann, K., Messner, M. and A. Solis (2015) „Elite higher education, the marriage market and the intergenerational transmission of human capital", SSRN working paper. • Miguel, E. and Kremer, M. (2004) "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities, Econometrica, 72(1), 159-217. • Schultz, P. (2004), "School subsidies for the poor: evaluating the Mexican Progresa poverty program", Journal of Development Economics, 74(1), 199-250.

Module number and title	**E533 Auction Theory**
Form and applicability of the module	Elective course for Master in Economics
Duration of the Module	One semester
ECTS-Credits	9
Teaching method	Lecture (2 SWS) + exercise (2 SWS)
Workload	270 working hours, containing 42 hours class time, 228 hours independent study time
Cycle of offer	once in a year
Expected number of students in class	15
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	This course will provide an overview of modern auction theory and its methods. Selected topics from single and multi-unit auctions will be covered as well as an introduction into mechanism design. Contents The course will provide an introduction to the core concepts of auction theory. The focus of the course is not only on the results of the auction theoretic literature but also on the methods and proof techniques. At the end of the course the participants should be able to understand and solve basic auction theoretic models. Moreover, the learning experience will be enriched with case studies from the real life procurement and license auctions. The contents of the course are as follows. Single Object Auctions: 1. Private Value Auctions 2. The Revenue Equivalence Principle 3. Risk-Averse Bidders 4. Budget Constraints 5. Asymmetry 6. Auctions with Interdependent Values 7. Mechanism Design (with Interdependent Values) 8. Bidding Rings Multiple Object Auctions: 1. Introduction to Multiple Object Auctions 2. Equilibrium and Efficiency with Private Values 3. Revenue Comparison 4. Sequential Sales 5. Spectrum auctions
Expected competences acquired after completion of the module	Successful participants can solve optimal-bidding problems in auctions, using advanced mathematical techniques. They first model the informational environment in a given application, using probability theory, and, second, use optimization theory to find optimal bidding strategies. They understand the efficiency and revenue properties of single-unit auctions under standard assumptions about the informational environment. Based on this, they are able to evaluate what possibly novel auction format is best suited for a given application. They see the limits of current research on auctions, in particular with respect to modeling the informational environment. More generally, they appreciate various roles of private information in decision making.
Requirements for the assignment of ECTS-credits and grades	Final exam (120 min)
Responsible teacher of the module	Vitali Gretschko

Additional teachers	Philippe Gillen, Nicolas Fugger, Tobias Rhiem
Further information	**Main text:** Auction Theory, Vijay Krishna **Additional literature:** • Putting Auction Theory to Work, Paul Milgrom • An Introduction to Auction Theory, Flavio M. Menezes and Paulo K. Montero • The Economic Theory of Auctions, Paul Klemperer • Auction Theory: A Guide to the Literature, Paul KlempeterCombinatorial Auctions, Peter Crampton, Yoav Shoham, and Richard Steinberg

Module number and title	**E553 Development Economics: Experimental approaches**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-Credits	5
Teaching method	Lecture (2)
Workload	150h working hours, containing 21 hours class time and 129 hours independent study time and preparation for the replication
Cycle of offer	Irregular
Expected number of students in class	15
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	Development economics deals with economic aspects of the development process in low-income countries. After an examination of the long-run factors of economic development, this lecture focuses on interventions intended to promote economic growth and welfare of the population in developing countries. In particular, it accumulates evidence to answer the following questions: Which interventions improve the living conditions of the poor? Methodologically, this lecture comprises of econometric methods used for program evaluation. These methods identify causal relationships between interventions and their intended outcomes (e.g. using instrumental variables, randomized control trials, regression discontinuity). The practical exercises include hands-on empirical work with STATA. Evaluation will be based on replications of famous empirical articles in developing countries. Students will implement three replications but only one will be graded (based on a random assignment at the end of the semester). Students will only have a few days to perform the replications, typically from the Friday after the end of the block to the Sunday evening. This year the course will mainly talked about institutions and education.
Expected competences aquired after completion of the module	In terms of learning outcomes for students the lecture pursues the following goals: • Introduce students to state-of-the-art research on institutions and education. • Give students insights on how to do empirical research employing econometric methods.

	• Enable students to make critical assessments of research work.Enable students to independently great scientific articles using epirical tools learned in class.
Responsible teacher of the module	Dr. Alexandra Avdeenko Dr. Adrien Bouguen
Additional teachers	
Requirements for the assignment of ECTS-credits and grades	Replications (70%), class participation (30 %)
Additional information	**Literature** Particularly relevant readings are marked with a "*". **0. General** The following textbooks and book chapters will be covered in parts. • Angrist, J. and J.-S. Pischke (2009) Mostly Harmless Econometrics: An Empiricist's Companion, Princeton and Oxford: Princeton University Press. • Deaton, A. (1997) The Analysis of Household Surveys: A Microeconometric Approach to Development Policy, Baltimore: John Hopkins University Press. • Duflo, E., Glennerster, R. and M. Kremer (2008) "Using Randomization in Development Economics Research: A Toolkit," in P. Schultz and and J. Strauss (Eds.) Handbook of Development Economics, Vol. 4, Amsterdam: North-Holland. **1. Institutions section** Acemoglu The Colonial Origins of Comparative Development: An Empirical Investigation Author(s): Daron Acemoglu, Simon Johnson, James A. Robinson Source: The American Economic Review, Vol. 91, No. 5 (Dec., 2001), pp. 1369-1401 Monitoring Corruption: Evidence from a Field Experiment in Indonesia, B.A. OLSEN 2007 **2. Education section** **General literature** • *Shari Krishnaratne, et al, 3ie Review Paper 2013* • *Banerjee et al JPAL Review Paper PPE 2013* • *Iqbal et al Review Paper 2011* • *Petrosino etal Campbell Systematic Reviews 2009* • *Kremer Holla ARE 2009* **2.1 Return to education in developing countries** • *Card etal HLE 1999 ** • *Pett etal EER 2015** • *Psacharoupoulous and Patrinos Education Economics 2004** **2.2 Demand for education in developing countries** • *Alkresh etal World Bank WP 2013* • *Attanasio etal AEJAE 2010* • *Baird etal QJE 2011* • *Barrera etal wp 08* • *Benhassine et al AEJAE 15* • *Ariel Fiszbein and Norbert Schady , CCT World Bank Review Paper 2009* • *Galiani & Mc Ewans, JPuE, 2011* • *Macours Vakis, EJ, 2014* • *Shady Arujo, economia, 2006*

	2.3 Supply of Education in developing countries • *ASER report 2014.pdf* • *Banerjee et al QJE 2007.pdf* • *Burde Linden AEJAE 2013.pdf* • *Chaudhury et al JPE 2006.pdf* • *Duflo et al AER 2011.pdf* • *Duflo et al AER 2012.pdf* • *Duflo et al JPUE 2015.pdf* • *Levy etal 2012 Mathematica report.pdf*

Module number and title	**E5026 Programming in Stata**
Form and applicability of the module	Elective course for Master in Economics
Duration of the Module	One semester
ECTS-Credits	7
Teaching method (semester hour per week)	Lecture (2 SWS) and Exercise (1 SWS)
Workload	210 working hours
Cycle of offer	once
Expected number of students in class	15
Course language	English
Prerequisites	E601-603 (or equivalent)
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	Die Studierenden sind in der Lage, quantitative Methoden in Stata selbständig zu programmieren. Sie kennen Stata und Mata als Programmiersprachen und verstehen die Standardsyntax bzw. die Grammatik der Sprachen. Dadurch haben sie auch erlernt, Statas Kommandos besser zu verstehen und auch gegebenenfalls anzupassen. Ihr Wissen können die Studenten auf verschiedene Datensätze anwenden. Sie sind in der Lage, aufwändige Analysen zu automatisieren und damit effizienter zu arbeiten. Darüber hinaus sind sie in der Lage, Monte Carlo Simulationen durchzuführen und deren Ergebnisse zu interpretieren und zu verwenden, um die Güte von Schätzverfahren einzuschätzen. Sie können Stichproben aus einer großen Auswahl von Verteilungen generieren. Mit Hilfe von Monte-Carlo-Simulationen erreichen die Studenten ein besseres Verständnis für die Unsicherheit und Güte von Schätz- und Testverfahren.

Requirements for the assignment of ECTS-Credits and Grades	Final exam (90 min)
Responsible teacher of the module	Dr. Alexandra Avdeenko Dr. Ingo Steinke
Further information	Cameron/ Trivedi (2009). Mircoeconometrics using Stata. Stata Press.

Module number and title	**E5030 Behavioral Economics: Theory and Experimental Methods**
Form and applicability of the module	Elective course for the Master program in Economics
Duration of the module	One semester
ECTS-Credits	9 ECTS
Teaching method	Lecture (2 SWS) + exercise (2 SWS)
Workload	270 working hours, containing 42 hours class time and 228 hours independent study time and preparation for the exam
Cycle of offer	irregular
Expected number of students in class	15
Course language	English
Prerequisites	E601-603 (or equivalent)
Goal and contents of the module	This module is divided into two parts. The first part deals about behavioral-economic theory, demonstrating how it extends the standard micro-economic theory. Here, students are presented to classical choice anomalies. In this context the lecture concentrates on decision under uncertainty. The students will get a profound understanding how Kahneman and Tversky's (1979) Prospect Theory may serve as alternative theory for decision under uncertainty. The module will also demonstrate how fairness issues may affect decision making. Here it covers the inequality-aversion model by Fehr and Schmidt (1999). In the second part students will get a precise understanding about the usage and appropriate design of economic experiments.
Expected competences acquired after completion of the module	Students will acquire a basic understanding of behavioral-economic theory. Importantly, they will acquire the knowledge to set up experiments based on existing research questions.
Requirements for the assignment of ECTS-credits and grades	Final exam (90 min)
Responsible teacher of the module	Prof. Dr. Holger Rau
Further information	• Ackert, L., and Deaves, R. (2009). Behavioral finance: Psychology, decision-making, and markets. Cengage Learning. Angnar, E. (2012). A course in behavioral economics. Palgrave-McMillian. • Camerer, C., Loewenstein, G., Rabin, M. (2004). Advances in Behavioral Economics. Princeton University Press. Davis, D. and Holt, C. (1992). Experimental Economics. Princeton University Press. • Friedman, D. and Sunder, S. (1994). Experimental Methods: A Primer for Economists. Cambridge Universtiy Pres. • Moffatt, P.G. (2015). Experimetrics – Econometrics for Experimental Economics. • Smith, V. & Plott, C. (2008): Handbook of Experimental Economic Results. North Holland. • Wilkinson, N. & Klaes, M. (2012). An introduction to behavioral economics. Palgrave-McMillian

Module number and title	**E5034 Topics in Empirical Economics**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS credits	7
Teaching method	Lecture (2 SWS) + exercise (1 SWS)
Workload	210 hours consisting of 31,5 hours class time and 178,5 hours independent study and writing of the final paper.
Cycle of offer	Once
Expected number of students in class	15
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	The course will cover fundamental methods for microeconomic data (with focus on linear models), including instrumental variables estimation, maximum likelihood and generalized method-of-moments estimation. Both theory and applications will be included in the course. The target audience are Master students. The goal of this course is to give a solid introduction to microeconometric methods.
Expected competences acquired after completion of the module	The students should be enabled to understand basic concepts in microeconometrics and to utilize recent results for their own applied work.
Requirements for the assignment of ECTS-credits and grades	Presentation (40%) and written exam/term paper (60%)
Responsible teacher of the module	Dr. Helmut Farbmacher
Further information	• Cameron and Trivedi (2005): Microeconometrics: Methods and Applications. • Anatolyev and Gospodinov (2011): Methods for Estimation and Inference in Modern Econometrics

Module number and title	**E5039 Behavioral Industrial Organization**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	5
Teaching method	Lecture (2 SWS)
Workload	150 working hours, containing 21 hours class time and 129 hours independent study time and preparation for the exam
Cycle of offer	Irregular
Expected number of students in class	15
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	This course is intended to provide an introduction to Behavioral Industrial Organization. The field that studies the implications of the presence of bounded rational consumer in oligopolistic markets. More specifically, bounded rational are the consumers that may have inconsistent preferences, or limited ability to anticipate and control future choices, or limited ability to understand complex market environments and products, or sensitivity to reference points etc. We will study cases where the use of this established psychological insights in economic decision making, can explain market phenomena that cannot be explained by the presence of rational consumers. Moreover, we will see interesting policy implications, since rational firms maybe could exploit systematic consumers` biases, by using exploitative price plans, default options or other obfuscation practices.
Expected competences acquired after completion of the module	Ability to understand the implications of consumers biases in oligopolistic markets and the possibilities for policy intervention.
Requirements for the assignment of ECTS-credits and grades	Written final exam.
Responsible teacher of the module	Eleftheria Triviza
Further information	Reference book: Spiegler (2011), Bounded Rationality and Industrial Organization

Module number and title	**E5040 Impact Evaluation**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	9
Teaching method	Lecture (2 SWS) + exercise (2 SWS)
Workload	270 working hours, containing 42 hours class time and 228 hours independent study time
Cycle of offer	every autumn term
Expected number of students in class	15
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	Preliminary schedule: In this course we will cover impact evaluation methods as well as models for survey methodology. Topics will include counterfactual outcomes, heterogeneous treatment effects, (propensity) score matching, differences in differences, instrumental variables designs, randomized control trials,

	regression discontinuity design and various methods for collecting primary data. More details will follow.
Expected competences acquired after completion of the module	The students become acquainted with modern methods in impact evaluation.
Requirements for the assignment of ECTS-credits and grades	tba
Responsible teacher of the module	Prof. Dr. Markus Frölich Contact (secretary´s office: Anja Dostert): Address: L7, 3 - 5, room 1.21/1.22 Phone: 0621 181-1920 E-mail: dostert@uni-mannheim.de
Additional teachers	tba
Further information	tba

Module number and title	**E5044 Labor Market Policy**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	7
Teaching method	Lecture (2 SWS) + exercise (1 SWS)
Workload	210 working hours
Cycle of offer	Irregular
Expected number of students in class	15
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	This course provides a graduate level introduction to policy-relevant topics in Labor Economics. These include job search, the determination of equilibrium unemployment, the effects of unemployment insurance, policies designed to improve the efficiency of the labor market, the wage effect of immigration, income inequality and the effects of technology on the labor market.
Expected competences acquired after completion of the module	The student will be able to analyze policy questions related to the labor market theoretically and to interpret the relevant empirical finding in the light of causal inference. She will also be able to deeply analyze the current state of the related economic literature.
Requirements for the assignment of ECTS-credits and grades	tba
Responsible teacher of the module	Steffen Habermalz, Ph.D.
Further information	The lecture material is based mostly based on Cahuc/Carcillo/Zylberberg's Labor Economics (2nd ed.) and on selected journal articles, More detail will be provided in class.

Module number and title	**E5045 Economics of Migration**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	7
Teaching method	Lecture (2 SWS) + exercise (1 SWS)
Workload	210 working hours, containing 31.5 hours class time and 178.5 hours independent study time and preparation for the exam

Cycle of offer	Once
Expected number of students in class	10
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	The lecture gives an introduction to the economics of migration. Students are provided with the theoretical concepts and empirical tools to evaluate the economic consequences of migration. In particular, the course aims at applied empirical methods that allow the identification of causal effects. (Preliminary) Organization of the course: 1. Introduction, 2. Selection of Immigrants, 3. Economic Assimilation, 4. Children of Immigrants, 5. Effects of Immigration, 5.1 On Wages and Employment, 5.2 On Industry Structure and Technology, 5.3 Fiscal Costs and Benefits, Public Services, Prices, and the Housing Market, 6. Economic Benefits from Immigration, 7. High-Skill Immigration.
Expected competences acquired after completion of the module	At the end of the course, students are familiar with basic theoretical and empirical concepts in the area of economics of migration, with a special focus on the identification of causal effects. Students have developed the ability to read and understand the content of economic papers, write (short) critical academic essays, and give academic presentations.
Requirements for the assignment of ECTS-credits and grades	1-hour final exam (60%) and two assignments (20% each) Assignments: Each student (or two students depending on the number of students) is assigned one working paper and one published paper. The first assignment for each student is to give a presentation of one published article. The second assignment is to write a short referee report (maximum 1,500 words) of one working paper (paper that is not published yet).
Responsible teacher of the module	Prof. Dr. Jens Ruhose
Further information	Most of the lecture is based on Borjas, George J. (2014). Immigration Economics, Harvard University Press. Further references are given in class.

Module number and title	**E5048 Portfolio Choice and Asset Pricing**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	9,5 ECTS
Teaching method	Lecture (3 SWS) + exercise (1 SWS)
Workload	285 working hours, containing 42 hours class time and 243 hours independent study time and preparation for the exam
Cycle of offer	Irregular
Expected number of students in class	20
Course language	English
Prerequisites	E601-603 (or equivalent) or knowledge in • intermediate microeconomics, e.g. Varian 2010 • intermediate macroeconomics, e.g. Romer 2011 • optimization, e.g. Chiang/Wainwright 2005, Simon/Blume 1994
Goals and contents of the module	This course makes the student familiar with the most prominent theories of portfolio choice and asset pricing and provides a critical discussion of the assumptions underlying these theories. We first introduce “Decision Making Under Uncertainty” which is the main building block of all theories on portfolio choice (partial equilibrium perspective) and asset pricing (general equilibrium perspective).

	Second, we derive the most widely used asset pricing model – the "Capital Asset Pricing Model" (CAPM). Taking a more rigorous perspective solely based on first principles, we then derive the "Arrow-Debreu Pricing Model" (ADAPM) and show how the CAPM model evolves as a special case with quite restrictive (and unrealistic) assumptions. Third, we apply the principles of asset pricing to option pricing and derive the "Binomial Option Pricing Formula" (discrete time Black-Scholes formula) to discuss the benefit and perils of financial derivatives. Fourth, we conclude by discussing the source and impact of market incompleteness on asset pricing.
Expected competences acquired after completion of the module	Learning objectives: • understand portfolio choice and asset pricing based on first principles (micro-foundation) • critically assess underlying assumptions of asset pricing models • understand complete and incomplete markets; in particular, asset pricing implications when markets are incomplete This course is NOT a course in • behavioral finance • quantitative finance • technical analysis
Requirements for the assignment of ECTS-credits and grades	120 min exam
Responsible teacher of the module	Prof. Dr. Martin Scheffel
Further information	Main textbook: Eichberger, J., and I. R. Harper (1997): Financial Economics. Oxford University Press. Background Literature: Hiang, A. and K. Wainwright (2005): Fundamental Methods of Mathematical Economics. McGraw Hill.

Elective Module: Seminars

Module number and title	**E566 Strategic Information Transmission for Masterstudents**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	5
Teaching method	Block seminar (2 SWS)
Workload	180 working hours
Cycle of offer	Irregular
Expected number of students in class	up to 10
Course language	English
Prerequisites	E601-603 (or equivalent); Knowledge of non-cooperative game theory under incomplete information.
Goals and contents of the module	Students are required to pick one paper in selected topics and give a presentation to discuss the paper's strengths and weaknesses. Based on comments that they receive in the presentation, students are required to write a report summarizing the seminar paper. Topics include cheap talk games, persuasion games, and their application to economics, political economics, and finance. To make a presentation in class based on a paper of your choice on strategic information transmission, I recommend that you pick a paper from the list I will distribute. Students are required to pick one paper in selected topics and give a presentation to discuss the paper's strengths and weaknesses. Based on comments that they receive in the presentation, students are required to write a report summarizing the seminar paper.
Expected competences aquired after completion of the module	
Requirements for the assignment of ECTS-credits and grades	Term paper, presentation
Responsible teacher of the module	Takakazu Honryo
Additional information	

Module number and title	**E599 Empirical Environmental Economics**
Form and applicability of the module	Elective course for Master in Economics
Duration of the Module	One semester
ECTS-Credits	5
Teaching method	Block seminar (2 SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	Irregular
Expected number of students in class	10
Course language	English
Prerequisites	E601,E603 (or equivalent)
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.
Requirements for the assignment of ECTS-Credits and Grades	Presentation (40%), report (40%), class room discussion (20%)
Responsible teacher of the module	Prof. Ulrich Wagner, PhD

Module Number and Title	**E5002 History of Modern Economics**
Form and applicability of the module	Elective course for Master in Economics
Duration of the Module	One semester
ECTS-Credits	5
Teaching method	Block seminar (2 SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	once
Expected number of students in class	10
Course language	English
Prerequisites	Economics students**:** E601-603 (or equivalent); for MMM and Business Mathematics students, good foundations in economic theory
Goals and Contents of the module	Economics underwent several major transformations in the 20th century. Mathematical formalization, economic modeling, econometrics and economic experiments transformed it to such a degree that two economists century apart would have trouble to understand each other and practice economics in the same fashion. The aim of this seminar is to understand these transformations through the study of selected Nobel Prize-winning contributions to economics. The Nobel Memorial Prize in Economic Sciences has come to be associated with the most influential and path-breaking research in economics. Since its inception in 1969, over seventy scholars have been awarded it. The seminar consists of four introductory lectures: 1) brief history of economics until the early 20th century; 2) how economics became a mathematical; 3) the econometric revolution; 4) the experimental turn in economics. Thereafter students choose one Nobel laureate for their research paper and presentation.
Expected Competences acquired after completion of the module	In this seminar, students learn to comprehend, present, critically evaluate and historically situate the work of leading economists of the second half of the 20th century. As a result, they should gain knowledge of history of modern economics and better understand the practice of modern economics.
Requirements for the assignment of ECTS-Credits and Grades	Presentation, seminar paper and class participation
Responsible teacher of the module	Dr. AndrejSvorenčík

Module number and title	**E5005 Seminar in Public Economics**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	5
Teaching method	Block seminar (2 SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	Approximately once every three to four semesters
Expected number of students in class	10
Course language	English
Prerequisites	Open to all second and higher semester Master (Economics) students. For all others who wish to participate, please consult with instructor.
Goals and contents of the module	This seminar is intended for Master students in Economics with interests in public and international economics. The main focus of the seminar is on the role of fiscal institutions and fiscal rules that shape and constrain government budgest and debt in EU countries. We cover recent research in this area, but also pay close attention to current policy debates and institutional developments. Students must write and present a term paper (possible topics below, own suggestions within the general topic of seminar welcome).
Expected competences acquired after completion of the module	Students learn to read and understand current research in the area. In contrast to pure lecture-type classes students are highly active in developing the material. Students need to draw on material from previous courses in micro, macro and econometrics to sort the wealth of information and research. The writing of a term paper allows students to improve their economic writing skills, and to express complex economic phenomena in their own words. Students present their work in front of the entire course audience. This trains their presentation skills. In addition students need to critically review the material and suggest own ideas for future research. As a result of discussion by all seminar participants students learn to interact with each other and evaluate other students' work.
Requirements for the assignment of ECTS-credits and grades	Term Paper 50%, Presentation (incl.slides) 40%, Class Participation 10%
Responsible teacher of the module	Prof. Eckhard Janeba
Additional information	**Topics and Initial Reading** **1. The Fiscal Framework in Europe** • European Commission: "Vade mecum on the Stability and Growth Pact, European Economy", Occasional Papers 151, May 2013. • Ludovit Odor, 2014: "The Good, the Bad and the Ugly", Discussion Paper No. 3/20, Council for Budget Responsibility, Slovakia. **2. Fiscal Discipline in the EU** • Wyplosz, C.: "Europe's Quest for Fiscal Discipline", European Economy, Economic Papers 498, April 2013 • Juncker, J.-C. et al.: Completing Economic and Monetary Union, European Commission, 2015 ("5 Presidents' Report").

	3. Forecasting and Fiscal Rules • Frankel, J. and J. Schreger: "Over-optimistic official forecasts and fiscal rules in the Eurozone", Review of World Economics 149 (2013), 247-272. • G. Kempkes: Cyclical Adjustment in fiscal rules: Some evidence on real-time bias for EU-15 Countries, Finanzarchiv/Public Finance Analysis 70 (2), 278-315. • Tereanu, E., Tuladhar, A. and A. Simone: Structural balance targeting and output gap uncertainty, IMF Working Paper 14/107. **4. Fiscal Councils** • Calmfors, L. and S. Wren-Lewis: "What should fiscal councils do?" Mimeo, 2011. • Debrun, X. and T. Kinda: Strengthening Post-Crisis Fiscal Credibility: Fiscal councils on the rise – a new data set, IMF Working Paper 14/58, 2014. • Beetsma, R.M.W.J. and X. Debrun: Fiscal Councils: Rationale and Effectiveness, IMF Working Paper 16/86, 2016. **5. Fiscal Sustainability** • European Commission, Fiscal Sustainability Report 2015/6. • Escolano, J.: "A Practical Guide to Public Debt Dynamics, Fiscal Sustainability, and Cyclical Adjustment of Budgetary Aggregates", IMF Technical Notes and Manuals, 2010. • D'Erasmo P., Mendoza, E.G. and J. Zhang: "What is a sustainable public debt?", NBER Working Paper 21574, 2015 **6. Fiscal Capacity in Europe** • Dolls, M., Fuest, C. and A. Peichl: Automatic Stabilizers and Economic Crisis: US vs. Europe, Journal of Public Economics 96, 2012, 279-294. • Feld, L.P. and S. Osterloh: Is a fiscal capacity really necessary to complete EMU? Mimeo, 2013. **7. Sovereign Insolvency and Debt Restructuring** • Dolls, M., Fuest, C., Heinemann, F. and A. Peichl: Reconciling Insurance with Market Discipline: A Blueprint for a European Fiscal Union, ZEW Discussion Paper No. 044, 2015. • Bi, R., and Chamon, M. &, J. Zettelmeyer, 2016. "The Problem that Wasn't: Coordination Failures in Sovereign Debt Restructurings," IMF Economic Review, vol. 64(3), pages 471-501, August. • Zettelmeyer, J., Trebesch, C., Gulati, M.: "The Greek debt restructuring: an autopsy" Economic Policy (2013) 28 (75): 513-563. **8. Effectiveness of Fiscal Rules** • L. Forni, A. Bonfatti, "Fiscal Rules to Tame the Political Budget Cycle: Evidence from Italian Municipalities", January 20, 2017, IMF Working Paper No. 17/6.

	• Heinemann, F., M.-D. Moessinger and M. Yeter(forthcoming), "Do Fiscal Rules Constrain Fiscal Policy? A Meta-Regression-Analysis", European Journal of Political Economy. • Asatryan, Z., C. Castellón and T. Stratmann, "Balanced Budget Rules and Fiscal Outcomes: Evidence from Historical Constitutions", CESifo Working Paper No. 5893, May 2016. **9. German Debt Brake** • Burret, H.T., L.P. Feld and E.A. Köhler, "Fiscal Sustainability of the German Laender - Time Series Evidence", CESifo Working Paper No. 4928, August 2014. • Heinemann, F., Janeba, E., Schröder, C. and F. Streif: "Fiscal Rules and Compliance Expectations – Evidence for the German Debt Brake", Journal of Public Economics 142, October 2016, 11-23. • Potrafke, N., M. Riem and C. Schinke, "Debt Brakes in the German States: Governments' Rhetoric and Actions", CESifo Working Paper No. 5696, January 2016. **10. Fiscal Stance in Europe** • A. Bénassy-Quéré: "Euro-Area Fiscal Stance: From Theory to Practical Implementation", CESifo Working Paper 6040, August 2016. • European Fiscal Board: Assessment of the prospective fiscal stance appropriate for the euro area, June 2017. • G. Corsetti, G. J. Müller: "Multilateral Economic Cooperation and the International Transmission of Fiscal Policy", in: Globalization in an Age of Crisis: Multilateral Economic Cooperation in the Twenty-First Century, Feenstra and Taylor. 2014.
Further Information	

Module Number and Title	**E5020 Topics in Empirical Microeconomics**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-Credits	5
Teaching method	Block seminar (2 SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	Irregular
Expected number of students in class	13
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and Contents of the module	This course is intended for masters 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.

Requirements for the assignment of ECTS-Credits and Grades	Presentation and paper
Responsible teacher of the module	Prof. Dr. Michelle Sovinsky
Further information	Paper topics will be selected from current publications in empirical microeconomics

Module number and title	**E5033 Empirical Methods in Industrial Organization**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	5
Teaching method	Block seminar (2 SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	Once a year
Expected number of students in class	up to 15
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	This course is intended to provide an introduction to empirical industrial organization (IO). We will discuss the model, research question, sources of identification and estimation methodology. Topics include estimation of production functions, collusion, differentiated product demand, price discrimination, vertical relationships, and technology adoption. Students are required to select one paper for presentation and another one for writing a review (the guideline is provided at the organizational meeting). Each student has up to 30 minutes for presentation followed by a 10 minutes discussion.
Expected competences acquired after completion of the module	Students will obtain skills to comprehend, discuss, and evaluate published articles.
Requirements for the assignment of ECTS-credits and grades	Research review (50%) + presentation (50%)
Responsible teacher of the module	Prof. Hidenori Takahashi, Ph.D.

Module number and title	**E5037 The Macroeconomics of Uncertainty**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS credits	5
Teaching method	Block seminar (2 SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	Irregular
Expected number of students in class	15 (maximum)
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	Recessions are periods of high uncertainty. An active area of business cycle research since the Great Recession (2007-2009) examines whether

	recessions are caused or amplified by increases in uncertainty. This course reviews the recent literature on uncertainty. The reading list covers the measurement of uncertainty, empirical evidence, as well as macroeconomic theory on the link between uncertainty and business cycles. 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	Students learn to read and understand current research in the area. In contrast to pure lecture-type classes students are highly active in developing the material. Students need to draw on material from previous courses in micro, macro and econometrics to sort the wealth of information and research. The writing of a term paper allows students to improve their economic writing skills, and to express complex economic phenomena in their own words. Students present their work in front of the entire course audience. This trains their presentation skills. In addition students need to critically review the material and suggest own ideas for future research. As a result of discussion by all seminar participants students learn to interact with each other and evaluate other students' work.
Requirements for the assignment of ECTS-credits and grades	The evaluation will be based on students' participation in discussions during the seminar (20%), a presentation of one academic paper from the reading list (40%) and a term paper (40%).
Responsible teacher of the module	Matthias Meier

Module number and title	**E5042 Financial Networks and Systemic Risk**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS credits	5
Teaching method	Block seminar (2SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	Once
Expected number of students in class	14
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	For core financial market activities like risk management and asset pricing, it is fundamental to investigate the interdependence among financial institutions. In times of economic crises, a suitable measure of connectedness can provide valuable insights of financial markets and helps to understand how institutions influence each other. In particular, depending on contractual obligations between financial institutions, the financial distress at a bank with large systemic impact is likely to cause also distress at other institutions which can eventually result in severe economic crises. In this seminar, the students will work on topics related to recent concepts proposed in the literature to analyze the structure of financial networks and to measure systemic risk among financial institutions. The seminar topics will refer to different modelling approaches and their properties that have to be carved out in the term papers. The focus of the topics can lie on theory or empirical applications.

	In general, the seminar is suitable as a basis for a master thesis in theoretical and applied statistics for students from economics and from business mathematics The maximum participants is limited to 14.
Expected competences acquired after completion of the module	The students have acquired basic knowledge of different concepts for understanding financial networks and measuring systemic risk that have been proposed recently in economic and statistics literature. They studied their mathematical properties and are able to apply such concepts to execute empirical analyses. They are capable to understand the corresponding literature for a specific seminar topic and to identify independently relevant references. Furthermore, they are capable to extract the relevant information from the literature, to summarize it in written form, to give an oral presentation about it and to defend it in a discussion.
Requirements for the assignment of ECTS-credits and grades	Handout, Presentation, Discussion
Responsible teacher of the module	Carsten Jentsch
Additional teachers	Ruben Hipp

Module number and title	**E5043 Gender Differences in Labor Markets**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	5
Teaching method	Block seminar (2 SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	Irregular
Expected number of students in class	10
Course language	English
Prerequisites	Open to all second and higher semester Master (Economics) students. For all others who wish to participate, please consult with instructor.
Goals and contents of the module	The main focus of the seminar will be the investigation of gender differences and the consequences on the labor markets. The seminar concentrates on the analysis of gender differences in preferences. In this regard the course attempts to provide explanations for the gender pay gap. Moreover, we will deal with the impacts of nudging policies on gender differences. For instance, the topics deal with gender differences in competitiveness, in work performance, in social preferences, up to neuro economic approaches. The topics are based on three research papers which serve as main sources. However, participants may extend the literature by additional research papers. The paper „Gender Differences in Preferences“ (Croson and Gneezy, 2009) serves as general reading recommendation for all topics. Participants are required to submit a seminar paper (approx. 15 pages) and present it in class (20 minutes). Topics will be assigned in the first meeting. Afterwards, the remaining topics may be requested by sending an e-mail to holger.rau@uni-mannheim.de (Please indicate your ranked top 3 preferences). Topics will be assigned on a “first-come-first-serve” basis
Expected competences acquired after completion of the module	Students learn to read and understand current research in the area. In contrast to pure lecture-type classes students are highly active in developing the material. Students need to draw on material from previous

	courses in micro, macro and econometrics to sort the wealth of information and research. The writing of a term paper allows students to improve their economic writing skills, and to express complex economic phenomena in their own words. Students present their work in front of the entire course audience. This trains their presentation skills. In addition students need to critically review the material and suggest own ideas for future research. As a result of discussion by all seminar participants students learn to interact with each other and evaluate other students' work.
Requirements for the assignment of ECTS-credits and grades	Term Paper 70%, Presentation and class Participation 30%
Responsible teacher of the module	Prof. Dr. Holger A. Rau
Additional Information	General reading recommendation: Gender Differences in Preferences, Croson, R., and Gneezy, U. (2009), *Journal of Economic Literature* 47, 448-474.

Module number and title	**E5047 Digital Markets and Platforms**
Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	5
Teaching method	Block seminar (2 SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	Irregular
Expected number of students in class	10
Course language	English
Prerequisites	E601-603 (or equivalent)
Goals and contents of the module	The seminar covers recent research on the economics of digital markets and platforms with a focus on empirical studies. The topics range from reputation in online markets, advertising, consumer privacy, the economics of app markets, crowdfunding to online labour markets.
Expected competences acquired after completion of the module	Students have gained a broad understanding on the economics of digital markets and platforms. They are able to apply their expertise and methods to analyse and evaluate issues of digital markets. The students have broadened their analytical abilities as well as their presentation and discussion skills.
Requirements for the assignment of ECTS-credits and grades	Seminar participants have to write a seminar paper (22,000 characters including spaces), in which they analyse a problem related to digital markets. The paper has to be presented in class (20 minutes presentation + 10 minutes discussion). The seminar paper and the presentation contribute equally to the final grade. Weight of final grade: Seminar presentation (50%) + report (50%)
Responsible teacher of the module	Prof. Achim Wambach, Ph.D.

Module number and title	**E5049 Topics in Macroeconomics and Labor Markets**

Form and applicability of the module	Elective course for Master in Economics
Duration of the module	One semester
ECTS-credits	5 ECTS
Teaching method	Block seminar (2 SWS)
Workload	150 hours working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
Cycle of offer	Irregular
Expected number of students in class	20
Course language	English
Prerequisites	E601-603 (or equivalent) or knowledge in • intermediate microeconomics, e.g. Varian 2010 • intermediate macroeconomics, e.g. Romer 2011
Goals and contents of the module	In this Block-Seminar, we discuss the impact of labor market frictions on macroeconomic performance. Students will have to present seminal contributions on labor market frictions, labor market institutions and the impact of labor market policy with focus on recent research papers. There will be theoretical and empirical papers to be discussed.
Expected competences acquired after completion of the module	Learning objectives: • understand the role of labor markets and labor market frictions • critically assess the implications of labor market institutions on macroeconomic performance • acquire ability to write academic essay
Requirements for the assignment of ECTS-credits and grades	Term paper (10-12 pages) and presentation (20 min)
Responsible teacher of the module	Prof. Dr. Martin Scheffel

Curriculum

Economics Track			Competition and Regulation Economics Track			Economic Research Track		
Introductory Phase	**Exam (min)**	**ECTS credits**	**Introductory Phase**	**Exam (min)**	**ECTS points**	**Introductory Phase**	**Exam (min)**	**ECTS points**
Advanced Microeconomics	120	10	Advanced Microeconomics	120	10	Mathematics for Economists	120	6
Advanced Macroeconomics	120	10	Advanced Macroeconomics	120	10	Advanced Microeconomics	120	8
Advanced Econometrics	120	10	Advanced Econometrics	120	10	Advanced Macroeconomics	120	8
						Advanced Econometrics	120	8
Specialization Phase			**Specialization Phase: *Compulsory Modules***			**Specialization Phase : *Compulsory Modules***		
Specialized master courses including 2-4 seminars		60-66	Industrial Organization - Markets and Strategies		14	Advanced Microeconomics II	120	5
			Empirical Industrial Organization		7	Advanced Microeconomics III	120	5
			Competition Law		5	Advanced Macroeconomics II	120	5
			Interdisciplinary Competition and Regulation Seminar		5	Advanced Macroeconomics III	120	5
						Advanced Econometrics II	120	5
						Advanced Econometrics III	120	5
			Specialization Phase : *Elective Modules*			**Specialization Phase: *Elective Modules***		
			Specialized courses including 1-3 seminars		29 - 35	Specialized PhD courses and 1-2 seminars		40-46
						Specialization Phase: *Research Seminars*		
						CDSE seminar in the 3rd and 4th semester		0
						Faculty seminar		0
Research Phase			**Research Phase**			**Research Phase**		
Master's thesis (4 months), possibly including a thesis colloquium		30	Master's thesis (4 months), possibly including a thesis colloquium		30	Research thesis (11 weeks)		20
Total		**120-126**	**Total**		**120-126**	**Total**		**120-126**