



**Course Catalog Spring Semester 2018**  
**Master of Economics**



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## Compulsory Modules for the Competition and Regulation Economics Track

<b>Module number and title</b>	<b>E505 Industrial Organization: Markets and Strategies</b>
<b>Form and usability of the module</b>	Compulsory course for Master in Economics with specialization Competition and Regulation Economics, elective course for Master in Economics with specialization Economics
<b>Responsible teacher of the module</b>	Prof. Dr. Martin Peitz
<b>Cycle of offer</b>	
<b>ECTS credits</b>	14
<b>Teaching method (hours per week)</b>	lecture (4) + practical exercises (2)
<b>Workload</b>	420 working hours, containing 63 hours class time and 357 hours independent study time, time for assignments and preparation for the exam
<b>Course language</b>	English
<b>Prerequisites</b>	E601- E603 (or equivalent; this course is only suitable for Economics students)
<b>Grading and ECTS credits</b>	Exam (180 min, 60%), two sets of graded take home exercises (20%), participation in exercise session (20%)
<b>Goals and Contents of the module</b>	This course covers the theory of industrial organization. It provides an overview of modern industrial organization with an emphasis of the theory and formal models. Models are adapted to tackle concrete problems. Students are provided with a toolkit and are encouraged to <i>think strategically</i> . Theoretical analyses are complemented by case studies and background knowledge of competition policy. Organization: 1. Introduction; 2. Market Power; 3. Sources of Market Power; 4. Pricing and Market Segmentation 5. Product Quality and Information; 6. Theory of Competition Policy; 7. R&D and Intellectual Property; 8. Networks, Standards, and Systems; 9. Intermediation.
<b>Expected Competences acquired after completion of the module</b>	Ability to develop industrial organization models, ability to solve industrial organization models, ability to analyze business and competition cases
<b>Further information</b>	Essential reading: Paul Belleflamme and Martin Peitz (2015), Industrial Organization: Markets and Strategies, 2 <sup>nd</sup> edition, Cambridge University Press
<b>Expected number of students in class</b>	30
<b>Contact information</b>	Prof. Dr. Martin Peitz; email: martin.peitz@gmail.com; Office: L7, 3-5, 3rd floor, room 330

<b>Module number and title</b>	<b>E5046 Empirical Industrial Organization</b>
<b>Form and usability of the module</b>	Compulsory course for M. Sc. Economics with specialization Competition and Regulation Economics, elective course for M. Sc. Economics
<b>Responsible teacher of the module</b>	Prof. Ph.D. Hidenori Takahashi
<b>Cycle of offer</b>	Each spring semester
<b>ECTS credits</b>	7
<b>Teaching method (hours per week)</b>	Lecture (2) + exercises (1)
<b>Workload</b>	210 working hours, containing 31.5 hours class time and 178.5 hours independent study time and preparation for the exam.
<b>Course language</b>	English

<b>Prerequisites</b>	E601-603 (or equivalent; this course is only suitable for Economics students)
<b>Grading and ECTS credits</b>	Final exam (120 min, 70%), 2 graded take home exercises (30%).
<b>Goals and contents of the module</b>	This course is designed to provide an introduction to empirical methods in industrial organization, focusing on competition policy/antitrust. This course covers the traditional topics in empirical industrial organization and antitrust: demand estimation, supply estimation, measurement of market power and collusive markets. The aim is to provide students with the knowledge of the standard models and approaches and introduce them to modern research questions. This course is organized in lectures complemented by computer sessions. The software used is Stata and Matlab.
<b>Expected competences acquired after completion of the module</b>	Students acquire methodological skills that can be applied to answer empirical questions industrial organization and antitrust/competition policy.
<b>Further information</b>	Essential reading: Reading will be taken from recent research articles which will vary over time. A reading list will be distributed during the first course.
<b>Expected number of students in class</b>	30
<b>Contact information</b>	

<b>Module number and title</b>	<b>Competition Law</b>
<b>Form and applicability of the module</b>	Compulsory course for Master in Economics with specialization Competition and Regulation Economics
<b>Duration of the module</b>	One semester
<b>Cycle of offer</b>	Every spring semester
<b>ECTS-Credits</b>	5
<b>Teaching method (hours per week)</b>	Lecture (2 SWS)
<b>Workload</b>	150 working hours, containing 21 hours in class and 129 hours independent study time and preparation for the exam
<b>Course language</b>	English
<b>Prerequisites</b>	none
<b>Expected number of students in class</b>	15
<b>Goals and Contents of the module</b>	The aim of the module is to learn the basic provisions of EU competition law and to study the law in its economic and market context. The core of the course will be about cartels and collusive conduct (Art 101 TFEU) and abuse of market power (Art. 102 TFEU) and its legal consequences. Merger control will also be subject to the course.
<b>Expected Competences acquired after completion of the module</b>	Students will be able to understand competition policy in reaction to, e.g., price collusion, distribution agreements, licenses of intellectual property or joint ventures. They will be able to read cases of the European Court of Justice and apply their legal knowledge to new competition cases.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Final exam (60 min)
<b>Responsible teacher of the module</b>	Prof. Dr. Friedemann Kainer
<b>Additional teachers</b>	None
<b>Further information</b>	Legal texts will be provided. Further reading: Fox/Gerard, EU Competition Law, 2017; Lorenz, Introduction to EU Competition Law, 2013; Wish/Bailey, Competition Law, 8.ed., 2015.

## Elective Modules: Lectures

<b>Module number and title</b>	<b>E505 Industrial Organization: Markets and Strategies</b> (elective module for the Economics track)
<b>Form and usability of the module</b>	Compulsory course for Master in Economics with specialization Competition and Regulation Economics, elective course for Master in Economics with specialization Economics
<b>Responsible teacher of the module</b>	Prof. Dr. Martin Peitz
<b>Cycle of offer</b>	
<b>ECTS credits</b>	14
<b>Teaching method (hours per week)</b>	lecture (4) + practical exercises (2)
<b>Workload</b>	420 working hours, containing 63 hours class time and 357 hours independent study time, time for assignments and preparation for the exam
<b>Course language</b>	English
<b>Prerequisites</b>	E601- E603 (or equivalent; this course is only suitable for Economics students)
<b>Grading and ECTS credits</b>	Exam (180 min, 60%), two sets of graded take home exercises (20%), participation in exercise session (20%)
<b>Goals and Contents of the module</b>	This course covers the theory of industrial organization. It provides an overview of modern industrial organization with an emphasis of the theory and formal models. Models are adapted to tackle concrete problems. Students are provided with a toolkit and are encouraged to <i>think strategically</i> . Theoretical analyses are complemented by case studies and background knowledge of competition policy. Organization: 1. Introduction; 2. Market Power; 3. Sources of Market Power; 4. Pricing and Market Segmentation 5. Product Quality and Information; 6. Theory of Competition Policy; 7. R&D and Intellectual Property; 8. Networks, Standards, and Systems; 9. Intermediation.
<b>Expected Competences acquired after completion of the module</b>	Ability to develop industrial organization models, ability to solve industrial organization models, ability to analyze business and competition cases
<b>Further information</b>	Essential reading: Paul Belleflamme and Martin Peitz (2015), Industrial Organization: Markets and Strategies, 2 <sup>nd</sup> edition, Cambridge University Press
<b>Expected number of students in class</b>	30
<b>Contact information</b>	Prof. Dr. Martin Peitz; email: martin.peitz@gmail.com; Office: L7, 3-5, 3rd floor, room 330

<b>Module number and title</b>	<b>E508 Multiple Time Series Analysis</b>
<b>Form and usability of the module</b>	Elective module for M.Sc. Economics
<b>Responsible teacher of the module</b>	Prof. Dr. Carsten Trenkler
<b>ECTS credits</b>	9.5
<b>Teaching method (hours per week)</b>	Lecture (3) + exercises (1)
<b>Workload</b>	285 hours, containing 42 hours time in class and 243 hours independent study

	time and preparation for the exam
<b>Cycle of offer</b>	Each spring semester
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 (or equivalent)
<b>Grading and ECTS credits</b>	Final exam (90 min, 75%) and assignments (25%)
<b>Goals and contents of the module</b>	The lecture gives an introduction to multiple time series techniques and will cover vector autoregressive (VAR) processes, VAR estimation, VAR order selection and model checking. If time permits, we will also cover VARMA, Structural VAR models and so-called VEC models. The use of VAR models in forecasting, causality 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. 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 and VECM model framework in more detail.
<b>Expected competences acquired after completion of the module</b>	The ability to use and understand the basics of multiple time series in forecasting, causality and impulse response analysis.
<b>Further information</b>	Lütkepohl, H. (2005), New Introduction to Multiple Time Series Analysis, Springer, Berlin, Chapters 1-4, 6-9, and 11-13, Appendices A-D. The list of covered research papers will be provided at the beginning of the course.
<b>Expected number of students in class</b>	20
<b>Contact information</b>	Carsten Trenkler; Phone: 181-1851; email: trenkler<at>uni-mannheim.de; Office: L7, 3-5, room 105

<b>Module number and title</b>	<b>E557 Public Economics</b>
<b>Form and applicability of the module</b>	Elective course for Master in Economics
<b>Duration of the Module</b>	One semester
<b>ECTS-Credits</b>	7 ECTS
<b>Teaching method</b>	Lecture (2 SWS) + exercises (1SWS)
<b>Workload</b>	210 working hours, containing 36 hours class time and 174 hours independent study time and preparation for the exam
<b>Cycle of offer</b>	Once a year
<b>Expected number of students in class</b>	10
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and Contents of the module</b>	<p>This course provides an introduction to the field of public economics. The emphasis of this course is on the theory, though the field is large with significant empirical and experimental components. It covers core ideas in the areas of static and dynamic optimal taxation, public goods and externalities.</p> <p>Part I: Public Goods</p> <ol style="list-style-type: none"> <li>1. The nature of market failure</li> <li>2. Lindahl equilibrium</li> <li>3. Vickrey-Clarke-Groves mechanism</li> <li>4. The private provision of public goods</li> </ol> <p>Part II: Externalities</p>

	<ol style="list-style-type: none"> <li>1. Pigouvian corrective tax</li> <li>2. Coase Theorem</li> <li>3. Price vs. quantity regulations</li> <li>4. Optimal taxation with externalities</li> </ol> <p>Part III: Static optimal taxation</p> <ol style="list-style-type: none"> <li>1. Optimal commodity taxation</li> <li>2. Many Person Ramsey Tax Rule</li> <li>3. Production Efficiency Theorem</li> <li>4. Non-linear taxation of income</li> </ol> <p>Part IV: Dynamic optimal taxation</p> <ol style="list-style-type: none"> <li>1. Ramsey Problem</li> <li>2. New Dynamic Public Finance</li> </ol>
<b>Expected Competences acquired after completion of the module</b>	The course introduces the core topics in Public Economics. The course should prove useful for any student interested in analyzing policy issues.
<b>Requirements for the assignment of ECTS-Credits and Grades</b>	Final exam (120 min, 90%), problem sets (10%).
<b>Responsible teacher of the module</b>	Duk Gyoo Kim; email: d.kim@uni-mannheim.de
<b>Further information</b>	Lecture notes will be available.

<b>Module number and title</b>	<b>E581 International Trade</b>
<b>Form and usability of the module</b>	Elective course for M. Sc. Economics
<b>Responsible teacher of the module</b>	Yanping Liu /Harald Fadinger
<b>Cycle of offer</b>	Each spring semester
<b>ECTS credits</b>	7
<b>Teaching method (hours per week)</b>	Lecture (2) + exercises (1)
<b>Workload</b>	210 working hours, containing 31.5 hours class time and 178.5 hours independent study time and preparation for the exam.
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 (or equivalent)
<b>Grading and ECTS credits</b>	Final exam (50%), presentation (25%) and in-class quiz during presentations (25%)
<b>Goals and contents of the module</b>	This course will focus on the determinants, patterns and effects of International trade. It will cover the core trade models as well as their empirical applications. A tentative list of topics includes: Ricardian model, Heckscher-Ohlin model, trade with monopolistic competition, gravity equation, openness and firm productivity, trade and innovation, the interrelation between trade and income distribution, and other closely related topics. It will place equal weights on the trade theory and empirics of international trade.
<b>Expected competences acquired after completion of the module</b>	Familiarity with modern international trade theory and empirical method in International Trade

<b>Further information</b>	
<b>Expected number of students in class</b>	20
<b>Contact information</b>	Yanping Liu; Phone: (0621) 181-1910; email: yanping.liu@uni-mannheim.de; Office: Room 318, L7, 3-5

<b>Module number and title</b>	<b>E5014 Microeconomic Methods: Duration, Count Data, and Censored Regression Analysis</b>
<b>Form and usability of the module</b>	Elective course for M. Sc. Economics
<b>Responsible teacher of the module</b>	Daniel Gutknecht, Ph.D.
<b>Cycle of offer</b>	Once a year
<b>ECTS credits</b>	7
<b>Teaching method (hours per week)</b>	Lecture (2) + exercises (1)
<b>Workload</b>	210 hours in total, containing 31.5 hours in class and 278.5 hours for independent studies and exam preparation
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 (or equivalent)
<b>Grading and ECTS credits</b>	Written exam (90min, 85%) + coursework including short presentation (15%)
<b>Goals and contents of the module</b>	The analysis of different non-standard data types has a long history in applied and theoretical Microeconometrics. This course will provide an introduction to the analysis of duration, count, and “censored regression” data focusing in particular on identification, estimation, and implementation related issues. The first part of the course will mainly deal with different duration models, sampling schemes, censoring, unobserved heterogeneity, and treatment analysis in the duration context. The second part of the course will focus on count data and censored regression (e.g., Tobit) models dealing also with topics such as sample selection, truncation, etc..
<b>Expected competences acquired after completion of the module</b>	By the end of the course, students (i) should have a solid understanding of the key concepts of duration, count data, censored regression analysis and of related topics, (ii) should have acquired the mathematical tools, the empirical skills, and the necessary vocabulary to understand and to analyze theoretical and empirical questions in this context, and (iii) should be able to provide scientifically sound solutions and answers to these questions.
<b>Further information</b>	Literature: Cameron and Trivedi (2005): “Microeconometrics – Methods and Applications”; Chs. 16-20. Wooldridge (2010): “Econometric Analysis of Cross Section and Panel Data”; Chs. 17-20,22. Lancaster (1990): “The Econometric Analysis of Transition Data”. Winkelmann (2008): “The Econometric Analysis of Count Data”. Various Research Papers (specified in class)
<b>Expected number of students in class</b>	10
<b>Contact information</b>	Daniel Gutknecht, Ph.D.; email: daniel.gutknecht@uni-mannheim.de



<b>Module number and title</b>	<b>E5030 Behavioral Economics: Theory and Experimental Methods</b>
<b>Form and applicability of the module</b>	Elective course for the Master program in Economics
<b>Duration of the module</b>	1 semester
<b>ECTS-Credits</b>	9 ECTS
<b>Teaching method</b>	Lecture (2 SWS) + exercise (2 SWS)
<b>Workload</b>	270 working hours, containing 42 hours class time and 228 hours independent study time and preparation for the exam
<b>Cycle of offer</b>	irregular
<b>Expected number of students in class</b>	15
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent and prerequisites in game theory
<b>Goal and contents of the module</b>	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.
<b>Expected competences acquired after completion of the module</b>	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.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Final exam (90 min)
<b>Responsible teacher of the module</b>	Dr. Holger Rau
<b>Further information</b>	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 University Press. Moffatt, P.G. (2015). Experimentics – 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

<b>Module number and title</b>	<b>E5031 Applied Labour Economics</b>
<b>Form and usability of the module</b>	Elective course for M.Sc. Economics
<b>Responsible teacher of the module</b>	Dr. Asmus Zoch
<b>Cycle of offer</b>	Each spring semester

<b>ECTS credits</b>	9
<b>Teaching method (hours per week)</b>	Lecture (2) + exercises (2)
<b>Workload</b>	270 hours in total, containing 42 hours class time and 228 hours for independent studies, project and exam preparation
<b>Course Language</b>	English
<b>Prerequisites</b>	E601-E603 (or equivalent)
<b>Grading and ECTS credits</b>	Written exam (100 min, 70%) and exercises (30%)
<b>Goals and contents of the module</b>	This course will focus on different micro-econometric models using actual empirical studies from the field of labour economics. Starting from the standard theory of competitive labour markets, we introduce the concept of human capital, to explain wage differences between individuals, and explore the role of education. Exploring the Mincer earnings function, discrimination and unemployment, the students will learn how to analyse actual labour data sets using Stata. The first part of the course will deal with linear panel data models and instrumental regressions, the second part will focus on discrete choice models. This course will end with the introduction of non-parametric estimators.
<b>Expected competences acquired after completion of the module</b>	Ability to use Stata to conduct independent micro-econometric analysis and apply advanced micro-economic models.
<b>Further information</b>	Introductory literature: <ul style="list-style-type: none"> <li>• Wooldridge, Jeffrey M. (2002), <i>Econometric Analysis of Cross Section and Panel Data</i>, Cambridge, Mass.: MIT Press. Chapters 10-20.</li> <li>• George J. Borjas, <i>Labor Economics</i></li> </ul>
<b>Expected number of students in class</b>	25
<b>Contact information</b>	Dr. Asmus Zoch; Phone: (0621) 181-1842; email: zoch(at)uni-mannheim.de; Office 123

<b>Module number and title</b>	<b>E5034 Topics in Empirical Economics</b>
<b>Form and applicability of the module</b>	Elective course for Master in Economics
<b>Duration of the module</b>	1 Semester
<b>ECTS credits</b>	9
<b>Teaching method</b>	Lecture (2 SWS) + exercises (2 SWS)
<b>Workload</b>	270 hours consisting of 42 hours class time and 228 hours independent study and writing of the final paper.
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	15
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and contents of the module</b>	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

	microeconomic methods.
<b>Expected competences acquired after completion of the module</b>	The students should be enabled to understand basic concepts in microeconometrics and to utilize recent results for their own applied work.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Presentation (40%) and term paper (60%)
<b>Responsible teacher of the module</b>	Dr. Helmut Farbmacher
<b>Further information</b>	<ul style="list-style-type: none"> <li>• Cameron and Trivedi (2005): Microeconometrics: Methods and Applications.</li> <li>• Anatolyev and Gospodinov (2011): Methods for Estimation and Inference in Modern Econometrics.</li> </ul>

<b>Module number and title</b>	<b>E5035 Environmental Economics</b>
<b>Form and usability of the module</b>	Elective course for M. Sc. Economics
<b>Responsible teacher of the module</b>	Prof. Ulrich Wagner, PhD
<b>Cycle of offer</b>	Each spring semester
<b>ECTS credits</b>	9.5
<b>Teaching method (hours per week)</b>	Lecture (3) + exercises (1)
<b>Workload</b>	285 hours in total, containing 42 hours in class and 243 hours for independent studies and exam preparation
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 (or equivalent)
<b>Grading and ECTS credits</b>	Final exam (120 min, 70%) and presentation of an article (30%)
<b>Goals and contents of the module</b>	This course is an introduction to the field of environmental economics at the graduate level. The first part of the course presents the economic theory of environmental policy. Based on the theory of externalities, a broad range of instruments for environmental policy will be analyzed from an economic point-of-view. The second part of the course deals with empirical methods for the valuation of environmental quality, which is required for cost-benefit-analysis and in the implementation of environmental policies. The third part of the course is dedicated to the economic analysis of international environmental problems.
<b>Expected competences acquired after completion of the module</b>	Ability to formulate and solve problems in environmental regulation using advanced economic theory and mathematical techniques. Ability to estimate willingness-to-pay for environmental quality using statistical methods. Understanding of strategic incentives in international negotiations over environmental problems.
<b>Further information</b>	
<b>Expected number of students in class</b>	20
<b>Contact information</b>	Prof. Ulrich Wagner, PhD; email: wagner@vwl.uni-mannheim.de

<b>Module number and title</b>	<b>E5038 Empirical Macroeconomics: Structural Vector Autoregressions</b>
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<b>Form and applicability of the module</b>	Elective course for Master in Economics
<b>Duration of the module</b>	1 Semester
<b>ECTS credits</b>	5
<b>Teaching method</b>	Lecture (2 SWS)
<b>Workload</b>	150 hours consisting of 21 hours class time and 129 hours independent study time.
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	20 (maximum)
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and contents of the module</b>	This course covers structural vector autoregressive (SVAR) models. These models are widely used for empirical research in macroeconomics and finance. We will discuss estimation, identification, and inference of SVAR models, tools (such as forecast error variance decomposition and historical decomposition), and cover a number of empirical applications of SVAR models (e.g., to identify the effects of monetary policy shocks, fiscal expenditure shocks, and oil price shocks).
<b>Expected competences acquired after completion of the module</b>	The course introduces students to the econometric theory and macroeconomic applications of structural vector autoregressions.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Final exam (90 min, 60%) and problem sets (40%)
<b>Responsible teacher of the module</b>	Matthias Meier
<b>Further information</b>	Recommended textbooks: <ul style="list-style-type: none"> <li>• Kilian and Lütkepohl (Structural Vector Autoregressive Analysis, preliminary: see <a href="http://www-personal.umich.edu/~lkilian/book.html">http://www-personal.umich.edu/~lkilian/book.html</a>)</li> <li>• Lütkepohl (New Introduction to Multiple Time Series Analysis, 2005)</li> </ul>

<b>Module number and title</b>	<b>E5046 Empirical Industrial Organization (Elective module for the Economics track)</b>
<b>Form and usability of the module</b>	Compulsory course for M. Sc. Economics with specialization Competition and Regulation Economics, elective course for M. Sc. Economics
<b>Responsible teacher of the module</b>	Prof. Ph.D. Hidenori Takahashi
<b>Cycle of offer</b>	Each spring semester
<b>ECTS credits</b>	7
<b>Teaching method (hours per week)</b>	Lecture (2) + exercises (1)
<b>Workload</b>	210 working hours, containing 31.5 hours class time and 178.5 hours independent study time and preparation for the exam.
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 (or equivalent; this course is only suitable for Economics students)
<b>Grading and ECTS credits</b>	Final exam (120 min, 70%), 2 graded take home exercises (30%).
<b>Goals and contents of</b>	This course is designed to provide an introduction to empirical methods in

<b>the module</b>	industrial organization, focusing on competition policy/antitrust. This course covers the traditional topics in empirical industrial organization and antitrust: demand estimation, supply estimation, measurement of market power and collusive markets. The aim is to provide students with the knowledge of the standard models and approaches and introduce them to modern research questions. This course is organized in lectures complemented by computer sessions. The software used is Stata and Matlab.
<b>Expected competences acquired after completion of the module</b>	Students acquire methodological skills that can be applied to answer empirical questions industrial organization and antitrust/competition policy.
<b>Further information</b>	Essential reading: Reading will be taken from recent research articles which will vary over time. A reading list will be distributed during the first course.
<b>Expected number of students in class</b>	30
<b>Contact information</b>	

<b>Module number and title</b>	<b>E5050 Computational Economics and Finance</b>
<b>Form and applicability of the module</b>	Elective module for Master in Economics
<b>Duration of the module</b>	One semester
<b>ECTS-credits</b>	9,5 ECTS
<b>Teaching method</b>	Lecture (3 SWS) + exercise (1 SWS)
<b>Workload</b>	285 working hours, containing 42 hours class time and 243 hours independent study time and preparation for the exam
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	20
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 (or equivalent) or knowledge in <ul style="list-style-type: none"> <li>• intermediate microeconomics, e.g. Varian 2010</li> <li>• intermediate macroeconomics, e.g. Romer 2011</li> <li>• matrix algebra and optimization, e.g. Chiang/Wainwright 2005, Simon/Blume 1994</li> </ul> <p>There is no programming experience required.</p>
<b>Goals and contents of the module</b>	Micro- and Macroeconomic models generally lack closed form solutions and thus require numerical methods to get quantitative results for a particularly specified and parameterized model. The knowledge of numerical methods is therefore indispensable for applying economic models in policy and business consulting as well as in research. The objective of this course is to introduce same basic concepts of numerical analysis and to make the students familiar with solution methods for a broad class of economic models, including examples from finance, game theory, and macroeconomics. While most examples are used to illustrate the different algorithm and programming techniques, there will be a special focus on the quantitative macroeconomic workhorse model at the end of the lecture. This course gives an introduction to computational economics and finance. Starting point will be an introduction to Matlab, one of the most-widely used computer programs for simulating economic models. In the main part of the lecture basic numerical methods are presented, i.e. solving linear and nonlinear equations, numerical optimization, integration and differentiation as well as function approximation. All of the topics will be presented theoretically and will be accompanied by going through the computer code

	so that about one quarter of the course will be applied.
<b>Expected competences acquired after completion of the module</b>	Learning objectives: <ul style="list-style-type: none"> <li>• Introduction to scientific programming with Matlab. Focus on numerical methods for economic problems with many applications to microeconomics, macroeconomics, econometrics, finance, etc.</li> <li>• After the course, the student should be able to implement small computational problems to derive quantitative reliable results</li> </ul>
<b>Requirements for the assignment of ECTS-credits and grades</b>	Final exam (180min, 70%), take home assignment (30%)
<b>Responsible teacher of the module</b>	Prof. Dr. Martin Scheffel
<b>Further information</b>	Main textbook: Judd, K. L. (1998): Numerical Methods in Economics. The MIT Press.

<b>Module number and title</b>	<b>E5053 Quantitative Methods for Monetary Economics</b>
<b>Form and applicability of the module</b>	Elective module for Master in Economics
<b>Duration of the Module</b>	One semester
<b>ECTS-Credits</b>	9
<b>Teaching method (hours per week)</b>	Lecture (2 SWS) + exercises (2 SWS)
<b>Workload</b>	270 hours in total; 21 hours in class and 249 hours for independent studies and exam preparation
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	15
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and contents of the module</b>	This course will provide a basic toolbox to analyze macroeconomic models. Specifically we will learn how to solve neoclassical growth models, real business cycle models, and New Keynesian monetary models by numerical methods. They are also called “Dynamic Stochastic General Equilibrium (DSGE)” models. DSGE models often have only numerical solutions; therefore, it is important to learn how to solve models as well as its implication for understanding macroeconomic phenomena. In class, hands-on sessions using MATLAB and Dynare are also provided.
<b>Expected competences acquired after completion of the module</b>	Students will acquire the ability to operate and conduct numerical analysis within a modern framework of macroeconomic models.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Problem sets (50%) and final assignment (50%)
<b>Responsible teacher of the module</b>	Takeki Sunakawa, Ph.D.
<b>Additional teachers</b>	none
<b>Further information</b>	The material discussed in class will be accompanied by lecture notes and relevant references. Homework assignments may require writing computer codes. The programming environment of the course is MATLAB and Dynare. Programming may be done in groups, but the homework must be submitted individually. The textbooks of the course are McCandless, G. “The ABCs of RBCs: An

	Introduction to Dynamic Macroeconomic Models,” Harvard University Press (2008) and Galí, J. “Monetary Policy, Inflation and the Business Cycle: An Introduction to the New Keynesian Framework,” Princeton University Press (Second Edition, 2015). Other references are indicated in class if necessary.
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<b>Module number and title</b>	<b>E5057 Advanced Game Theory</b>
<b>Form and applicability of the module</b>	Elective module for Master in Economics
<b>Duration of the Module</b>	One semester
<b>ECTS-Credits</b>	5
<b>Teaching method (hours per week)</b>	Lecture (2 SWS)
<b>Workload</b>	150 hours in total; 21 hours in class and 129 hours for independent studies and exam preparation
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	15
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and contents of the module</b>	The course will cover topics of game theory. The first half of the course starts with a quick but formal review of the basics: dominated strategies, Nash equilibrium, and repeated games. Then, more in-depth normal form game topics will be covered: Minmax games, Bayesian games and Quantal Response equilibrium. The second half of the course will be devoted to extensive form games. Topics will be: Definition of the extensive form game, sub-game perfection, Backward Induction, Sequential equilibrium, perfect Bayesian Nash equilibrium, Forward Induction, Signaling games. Time permitting, additional topics may be the Trembling Hand perfect equilibrium and evolutionary games.
<b>Expected competences acquired after completion of the module</b>	After finishing the course, students will be able to: <ul style="list-style-type: none"> <li>• Solve games for various equilibria (e.g. Nash EQ, SPN EQ, SEQ, pPNEQ)</li> <li>• Judge which solution concept is the correct one to apply to specific games</li> <li>• Transform verbal descriptions into the appropriate game form</li> <li>• Check games for the existence of equilibria</li> <li>• Use those skills in simple applied models</li> </ul>
<b>Requirements for the assignment of ECTS-credits and grades</b>	Final exam (120 min)
<b>Responsible teacher of the module</b>	Dr. Peter Dürsch
<b>Additional teachers</b>	none
<b>Further information</b>	Recommended literature will be discussed in class.

<b>Module number and title</b>	<b>E5059 Public Service Delivery in Developing Countries</b>
<b>Form and applicability of the module</b>	Elective module for Master in Economics

<b>Duration of the Module</b>	One semester
<b>ECTS-Credits</b>	7
<b>Teaching method (hours per week)</b>	Lecture (2 SWS) + exercise (1 SWS)
<b>Workload</b>	210 hours in total; 31.5 hours in class and 178.5 hours for independent studies and exam preparation
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	15
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and contents of the module</b>	In this course, we will study both theoretically and empirically how best to motivate public servants with a focus on developing countries. We will start with the traditional theory of motivation, looking at how incentive contracts and selection can affect performance in the public sector and examine the results of experiments that have changed the incentive structure of public servants. We will also examine a newer literature that focusses on how identity is shaped in the work place and notes that workers who are intrinsically motivated to work may not respond well to explicit incentives. Again, we will look at experimental evidence that examines to what extent these theories are important in the real world.
<b>Expected competences acquired after completion of the module</b>	Students will gain an understanding of the theory of incentives as well as how these apply to the real world in developing countries. The course also aims to give students a better understanding of the empirical methods used in applied work on the subject of incentivising public-sector workers.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Final exam (120 min, 80%), take home assignment (20%)
<b>Responsible teacher of the module</b>	Dr. Nicholas Barton
<b>Additional teachers</b>	none
<b>Further information</b>	Recommended literature will be discussed in class.



## Elective Modules: Seminars

<b>Module number and title</b>	<b>E506 Seminar on Human Capital Formation</b>
<b>Form and usability of the module</b>	Elective course for M. Sc. Economics
<b>Responsible teacher of the module</b>	PD Dr. Friedhelm Pfeiffer
<b>Cycle of offer</b>	Each spring semester
<b>ECTS credits</b>	5
<b>Teaching method (hours per week)</b>	Seminar (2)
<b>Workload</b>	150 working hours, containing 21 hours time in class and 129 hours independent study time and preparation for the seminar paper and presentation.
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 (or equivalent); interest in research on the economics and econometrics of education and human capital formation
<b>Grading and ECTS credits</b>	Seminar paper (50%), oral presentation (25%), discussion (25%)
<b>Goals and contents of the module</b>	In the seminar education and human capital formation will be discussed from a theoretical and empirical point of view. We will study initial life conditions, the role of investments by the individual, the family and educational institutions and their expected returns. Especially optimal investments into human capital over the life cycle are examined together with the role of families and educational institutions in financing and producing skills. The intentions, structure and limitations of important empirical studies in the field, like SOEP, PISA or NEPS will be investigated, together with educational policies and reforms.
<b>Expected competences acquired after completion of the module</b>	Ability to write, present and defend an academic essay.
<b>Further Information</b>	In case you would like to participate in the seminar, please contact me via email. In response I will send you a list of seminar topics and further application procedures. The course shall take place on Wednesday, 15:30-17:00 in room 310, ZEW Mannheim.
<b>Expected number of students in class</b>	10
<b>Contact information</b>	PD Dr. Friedhelm Pfeiffer; Phone: +49 621 123150; email: pfeiffer@zew.de

<b>Module number and title</b>	<b>E530 Topics in Industrial Organization</b>
<b>Form and usability of the module</b>	Elective course for M. Sc. Economics
<b>Responsible teacher of the module</b>	Prof. Ph. D. Nicolas Schutz
<b>Cycle of offer</b>	Each spring semester
<b>ECTS credits</b>	5
<b>Teaching method (hours per week)</b>	Block seminar (2)
<b>Workload</b>	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation.
<b>Course language</b>	English

<b>Prerequisites</b>	E601-603 (or equivalent).; no prerequisites for MMM students. Not suitable for Business Mathematics students.
<b>Grading and ECTS credits</b>	Classroom presentation (30% of final grade), Seminar paper report (70% of final grade)
<b>Goals and contents of the module</b>	The seminar will cover selected topics on vertical integration and the boundaries of the firm. A reading list will be communicated at a later stage.
<b>Expected competences acquired after completion of the module</b>	Students will acquire a broad knowledge on topics related to vertical integration, its anticompetitive effects (the double Cournot model à la Salinger (1988), the foreclosure effect à la Ordover, Saloner and Salop (1990), the opportunism problem à la Hart and Tirole (1990)), and its efficiency effects (the transaction costs approach à la Williamson (1978), the property rights approach à la Grossmann-Hart-Moore (1986, 1990)). They should also understand the limitations of these theories, which have been highlighted in the literature (see, among others, Reiffen (1992), McAfee and Schwarz (1993) and Rey and Vergé (2005)). After reading research articles related to these topics, they will acquire an excellent command of the technical tools used by researchers contributing to this field. Relevant techniques include advanced game-theoretical tools (perfect bayesian equilibrium and its refinements, repeated games) as well as mathematical tools (polynomials, multivariate analysis and proof-writing skills). A student who successfully passes this course should use this new knowledge as a starting point to start contributing in a research-oriented way to the vertical integration literature.
<b>Further information</b>	Topics will be introduced in the first meeting.
<b>Expected number of students in class</b>	10
<b>Contact person</b>	Prof. Ph. D. Nicolas Schutz

<b>Module number and title</b>	<b>E586 Evaluation of Labor, Development, Education and Health Programs and Policies</b>
<b>Form and applicability of the module</b>	Elective Course for Master in Economics
<b>Duration of the Module</b>	1 semester
<b>ECTS-Credits</b>	5
<b>Teaching method</b>	Blockseminar
<b>Cycle of offer</b>	Once (spring semester)
<b>Expected number of students in class</b>	5-20
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 (or equivalent) for all Master's elective courses
<b>General requirements</b>	Econometrics at the Master level
<b>Goals and Contents of the module</b>	This course will introduce students to the most important approaches of program evaluation with a particular focus on the application of these methods. These approaches have been widely used in the economics literature in diverse fields (development, labor, public economics, economics of education and health) and can be applied to a wide range of questions such as evaluating the effects of antipoverty programs (e.g. conditional cash transfer programs), educational and job training programs, of changes in laws such as minimum wage laws and minimum drinking age, preventative health care and family planning programs, etc. The course will be structured according to the most important methods of program evaluation. Each method has been applied in different research areas (i.e. labor, development, education, health and public economics), so students can choose a topic to present and to write a short research paper on

	from the list of different research areas and of the different possible program evaluation methods.
<b>Expected Competences acquired after completion of the module</b>	The course aims at teaching students the skills that are necessary for reading and understanding recent applications of program evaluation methods in the areas of labor, development, public, education and health economics and for being able to apply the most important approaches of program evaluation to research questions of their interest.
<b>Requirements for the assignment of ECTS-Credits and Grades</b>	Presentation of a scientific paper in a research area the student is interested in (choice among the papers on an extended version of the reading list below) and writing of a short research paper.
<b>Responsible teacher of the module</b>	Prof. Dr. Katja Kaufmann
<b>Further information</b>	<p>Papers to be presented and research topics can be chosen from the reading list below (to be extended):</p> <p><b><u>A Introduction to Program Evaluation Methods</u></b></p> <p><b><u>B Randomized and Natural Experiments</u></b></p> <ul style="list-style-type: none"> <li>- Duflo, E. and Saez, E. (2003) "The Role of Information and Social Interactions in Retirement Plan Decisions: Evidence from a Randomized Experiment", QJE, 118, 815-842</li> <li>- Duflo, E., Dupas, P., Kremer, M. and Sinei, S. (2006) "Education and HIV/AIDS prevention: evidence from a randomized evaluation in Western Kenya," Policy Research Working Paper Series 4024, The World Bank.</li> </ul> <p><b><u>C Difference-in-Difference Estimator</u></b></p> <ul style="list-style-type: none"> <li>- Abadie, A. and Garbeanzabal, J. (2003) "The Economic Costs of Conflict: A Case Study of the Basque Country", AER, 93, 113-132.</li> <li>- Card, D. and Krueger, A. (1994) "Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania", AER, 84 (4), 497-532.</li> </ul> <p><b><u>D Regression Discontinuity Approach</u></b></p> <ul style="list-style-type: none"> <li>- Carpenter, C. and Dobkin, C. (2008) "The Effect of Alcohol Consumption on Mortality: Regression Discontinuity Evidence from the Minimum Drinking Age", American Economic Journal (AEJ): Applied Economics.</li> <li>- Garibaldi, P.; Giavazzi, F.; Ichino, A. and Rettore, E. (2007) "College Cost and Time to Complete a Degree: Evidence from Tuition Discontinuities", CEPR Discussion Paper N. 6106</li> <li>- Ludwig, J. and Miller, D. (2006) "Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design", NBER Working Paper 11702.</li> </ul> <p><b><u>E Comparison of different Approaches and Critical Evaluation</u></b></p> <ul style="list-style-type: none"> <li>- LaLonde, R. (1986) "Evaluating the Econometric Evaluations of Training Programs with Experimental Data", American Economic Review 76, 604-620</li> </ul>

	<ul style="list-style-type: none"> <li>- Todd, P. and Wolpin, K. (2006) “Assessing the Impact of a School Subsidy Program in Mexico: Using Experimental Data to Validate a Dynamic Behavioral Model of Child Schooling and Fertility”, AER, 96(5), 1384-1417.</li> </ul> <p><b><u>F Instrumental Variable Estimation (IV, LIV, IV-Quantile Regression)</u></b></p> <ul style="list-style-type: none"> <li>- IV: Gentzkow and Shapiro (2008) “Preschool Television Viewing and Adolescent Test Scores: Historical Evidence from the Coleman Study”, QJE</li> <li>- IV: Ichino, Andrea and Rudolf Winter-Ebmer (2004) "The Long-Run Educational Cost of World War Two”, Journal of Labor Economics, 22 (1), 57-86.</li> <li>- LIV: Carneiro, P., Heckman, J. J. and Vytlacil, E. (2005) “Understanding what IV Estimate: Estimating Marginal and Average Returns to Education”</li> <li>- Q-IV: Abadie, A., Angrist, J., and Imbens, G. (2001) “Instrumental Variables Estimation of the Effect of Subsidized Training on the Quantiles of Trainee Earnings”, Econometrica</li> </ul>
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<b>Module Number and Title</b>	<b>E5016 Topics in International Finance</b>
<b>Form and applicability of the module</b>	Elective course for Master in Economics
<b>Duration of the module</b>	1 semester
<b>ECTS-Credits</b>	5
<b>Teaching method</b>	seminar
<b>Workload</b>	
<b>Cycle of offer</b>	once
<b>Expected number of students in class</b>	15
<b>Course language</b>	English
<b>Prerequisites</b>	E601-E603 (or equivalent)
<b>Goals and Contents of the module</b>	The course reviews selected topics in International Finance with an emphasis on their policy implications. It requires familiarity with basic concepts in international economics and finance, macroeconomics, banking and econometrics. The reading list combines classic academic papers, recent working papers as well as reports by central banks and international organisations. The course is targeted at Master students who are interested in empirical research on international issues or aim at pursuing a career in a large central bank or an international organization (e.g. IMF, BIS, OECD etc.).
<b>Expected Competences acquired after Completion of the Module</b>	After completing this module, students will be familiar with selected recent empirical research in international finance which has proven to be relevant for central banks, regulators and international organisations. Students will also get exposed to data sources and empirical strategies used by researchers to identify causal effects in international finance. The seminar will also enable participants to provide constructive criticism of the papers discussed and to put them into a broader context. Finally, the seminar will help students to improve their presentation and writing skills and to get ideas for own empirical research in the area of international economics and finance.
<b>Requirements for the</b>	The evaluation will be based on students’ participation in discussions during

<b>assignment of ECTS-Credits and Grades</b>	the seminar (20%), a presentation of one academic paper from the reading list (40%) and a term paper (40%).
<b>Responsible teacher of the module</b>	Dr. Roland Beck, Tel. (0621) 181 -, E-Mail: rbeck@uni-mannheim.de
<b>Further information</b>	<p>1. Financial Development</p> <ul style="list-style-type: none"> <li>• The basic Finance-and-Growth Nexus</li> <li>• Non-linearities in the Finance-and-Growth Nexus</li> <li>• The “dark side” of Finance</li> <li>• Case study: Is Europe Overbanked?</li> </ul> <p>2. Financial Integration</p> <ul style="list-style-type: none"> <li>• Benefits of international financial integration</li> <li>• Boom-and bust cycles in international capital flows</li> <li>• Financial de-globalisation after the financial crisis?</li> <li>• Capital controls and Financial Protectionism</li> <li>• Case study: Capital flows and gravity models during the Sovereign Debt Crisis</li> </ul> <p>3. Financial crises</p> <ul style="list-style-type: none"> <li>• Stylised facts about systemic crises</li> <li>• Early warning models</li> <li>• Spillovers and contagion</li> <li>• Safe haven assets</li> <li>• Case study: Global spillovers from market turbulences in China</li> </ul> <p>4. Global liquidity and the global financial cycle</p> <ul style="list-style-type: none"> <li>• Defining and measuring global liquidity</li> <li>• Risk appetite and policy uncertainty</li> <li>• Global financial cycles and monetary policy autonomy</li> <li>• Case study: Common factors in global liquidity indicators</li> </ul> <p>5. Global investors</p> <ul style="list-style-type: none"> <li>• Global banks (G-SIFIs)</li> <li>• Institutional investors</li> <li>• Central banks and Sovereign Wealth Funds (SWFs)</li> <li>• Case study: Optimal reserve composition in the presence of sudden stops</li> </ul> <p>6. The International Monetary System</p> <ul style="list-style-type: none"> <li>• International currencies</li> <li>• Exorbitant privileges and exorbitant duties</li> <li>• Currency mismatches</li> <li>• Monetary policy spillovers</li> <li>• Case study: The international role of the euro and the RMB</li> </ul> <p>7. The Global Financial Safety Net</p> <ul style="list-style-type: none"> <li>• Reserve adequacy</li> <li>• Currency swap lines</li> <li>• Regional Financial Arrangements</li> </ul>

	<ul style="list-style-type: none"> <li>Case study: Central bank swap lines during the global financial crisis</li> </ul>
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<b>Module number and title</b>	<b>E5028 Topics on Monetary Union</b>
<b>Form and usability of the module</b>	Elective Module for M. Sc. Economics
<b>Responsible teacher of the module</b>	Prof. Dr. Antoine Camous
<b>Cycle of offer</b>	Once a year
<b>ECTS credits</b>	5
<b>Teaching method (hours per week)</b>	Block seminar (2)
<b>Workload</b>	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 (or equivalent); for MMM and Business Mathematics students: good foundations in macroeconomics
<b>Grading and ECTS credits</b>	The final grade will reflect both the content and the clarity of the presentation (30%), the report (40%), and the report refereed (30%).
<b>Goals and contents of the module</b>	<p>To form a Monetary Union, countries renounce to independent monetary policy and exchange rate adjustments. They adopt a common currency, free capital circulation and centralize monetary policy. Still, substantial elements of economic policy (fiscal policy, labor market regulations, etc.) are kept being conducted at the national level.</p> <p>This seminar will review theoretical and empirical frontier research to address the following core question:</p> <ol style="list-style-type: none"> <li>1. Why would countries form a Monetary Union?</li> <li>2. How to design institutions then?</li> <li>3. How to measure the costs and benefits of a Monetary Union?</li> </ol> <p>The following paper is a starting point for the seminar: Mongelli (2002) – “New Views on the Optimum Currency Area Theory: What is EMU telling us?” - ECB WP 138</p>
<b>Expected competences acquired after completion of the module</b>	<p>Three interrelated objectives:</p> <ol style="list-style-type: none"> <li>1. Review scientific research within its literature, extract its core idea and critically assess the relevance of the idea.</li> <li>2. Communicate effectively (oral presentation and written reports)</li> <li>3. Understand and apply the academic peer-review process.</li> </ol> <p>Each participant will be matched with a referee. The objective is to encourage collaborative review of both the content and the clarity of individual reports, and so to improve the presentation of academic research (both written and oral).</p>
<b>Further information</b>	The class description can change prior to the start of the seminar.
<b>Expected number of students in class</b>	5 - 15
<b>Contact information</b>	Prof. Dr. Antoine Camous; Phone: (06221) 181 -0186; email: camous@uni-mannheim.de; Office: 2.43, Office hours: Wed 4-5pm.

<b>Module number and title</b>	<b>E5036 Economics of Arts and Culture</b>
<b>Form and usability of the module</b>	Elective course for M. Sc. Economics
<b>Responsible teacher of the module</b>	Dr. Andrej Svorenčik
<b>Cycle of offer</b>	Once a year
<b>ECTS credits</b>	5
<b>Teaching method (hours per week)</b>	Block seminar(2)
<b>Workload</b>	150 hours for organizational meeting, block seminar, preparation of the seminar paper and presentation.
<b>Course language</b>	English
<b>Prerequisites</b>	E601-E603 (or equivalent); for MMM and Business Mathematics students: good foundations in economic theory
<b>Grading and ECTS credits</b>	Preparation (10%), presentation & class participation (50%), seminar paper (40%)
<b>Goals and contents of the module</b>	Economics of Arts & Culture or cultural economics is the application of economic analysis to the creative and performing arts, the heritage and cultural industries, in both the public and private sectors. It is concerned with the economic organization of the cultural sector and with the behavior of producers, consumers and governments in that sector. Topics from which students can choose their presentation include for instance: economics of art (demand and supply for art, art auctions), economics of luxury goods, economics of the performing arts, economics of cultural heritage, economics of creative industries (music industry, film industry, festivals, museums), economics of broadcasting, book publishing, and cultural policy.
<b>Expected competences acquired after completion of the module</b>	Students develop skills in analyzing cultural economics issues and understanding their effects on economic agents using models, case studies and empirical methods.
<b>Further information</b>	<ul style="list-style-type: none"> <li>• Towse, Ruth. 2010. A Textbook of Cultural Economics. Cambridge, UK; New York: Cambridge University Press.</li> <li>• Ginsburgh, Victor A. and Throsby, David (Eds. ) 2006 &amp; 2014. Handbook of the Economics of Art and Culture. 2 volumes. Available online through the university library: <a href="http://www.sciencedirect.com/science/handbooks/15740676/1">http://www.sciencedirect.com/science/handbooks/15740676/1</a> and <a href="http://www.sciencedirect.com/science/handbooks/1574067">http://www.sciencedirect.com/science/handbooks/1574067</a></li> </ul>
<b>Expected number of students in class</b>	10 students maximum
<b>Contact information</b>	

<b>Module number and title</b>	<b>E5041 Seminar on Auction Theory</b>
<b>Form and applicability of the module</b>	Elective module for Master in Economics
<b>Duration of the Module</b>	One semester
<b>ECTS-Credits</b>	5
<b>Teaching method (hours per week)</b>	Block seminar (2 SWS)
<b>Workload</b>	150 working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
<b>Cycle of offer</b>	Irregular
<b>Expected number of</b>	10

<b>students in class</b>	
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and contents of the module</b>	This seminar will provide an overview of modern auction theory. Selected papers on auction theory and mechanism design will be covered. The focus of the seminar is not only on the results of the auction theoretic literature but also on the methods and proof techniques.
<b>Expected competences acquired after completion of the module</b>	Students will acquire knowledge on topics related to auction theory. It will help students to improve their presentation and writing skills and to get ideas for own research. The seminar will also enable participants to provide constructive criticism of the papers discussed and to put them into a broader context.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Seminar thesis + presentation
<b>Responsible teacher of the module</b>	Prof. Dr. Vitali Gretschko
<b>Additional teachers</b>	Phillipe Gillen
<b>Further information</b>	List of papers will be provided during the first meeting.

<b>Module number and title</b>	<b>E5054 Topics in Environmental and Energy Economics</b>
<b>Form and applicability of the module</b>	Elective module for Master in Economics
<b>Duration of the Module</b>	One semester
<b>ECTS-Credits</b>	5
<b>Teaching method (hours per week)</b>	Block seminar (2 SWS)
<b>Workload</b>	150 hours consisting of class time, independent study and writing of the final paper.
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	10
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and contents of the module</b>	The seminar covers recent research in environmental and energy economics. The topics range from the international perspective of global public goods provision as being addressed in international climate negotiations to local applications targeting energy savings or tackling externalities within the mobility sector.
<b>Expected competences acquired after completion of the module</b>	Students have gained a broad understanding on selected recent trends in environmental and energy economics. They are able to apply their expertise and methods to analyse, discuss and evaluate issues of environmental economics. The students have broadened and sharpened their analytical abilities as well as their presentation and discussion skills.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Seminar participants have to write a seminar paper (22,000 characters including spaces), in which they analyse a problem related to environmental and energy economics. The paper has to be presented in class. The seminar paper and the presentation contribute equally to the final grade.
<b>Responsible teacher of the module</b>	Prof. Achim Wambach, Ph.D.
<b>Additional teachers</b>	Dr. Martin Kesternich, Carlo Gallier
<b>Further information</b>	Contact person: Dr. Martin Kesternich, email: kesterlich@zew.de; Dr. Fabienne Rasel, email: rasel@zew.de



<b>Module number and title</b>	<b>E5055 Field Experiments in Experimental Economics</b>
<b>Form and applicability of the module</b>	Elective module for Master in Economics
<b>Duration of the Module</b>	One semester
<b>ECTS-Credits</b>	5
<b>Teaching method (hours per week)</b>	Block seminar (2 SWS)
<b>Workload</b>	150 hours consisting of class time, independent study and writing of the final paper.
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	10
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and contents of the module</b>	Development of a profound understanding of the functioning and application of economic field experiments. In this respect the seminar gives an overview of the different areas where economic field experiments are applied. For instance, we will discuss papers in the areas of experimental labor economics, work incentives, compliance, discrimination and gender differences, fundraising, and development economics.
<b>Expected competences acquired after completion of the module</b>	A profound understanding of micro economics, game theory, and behavioral economics. Moreover, good econometric skills are required. Ability to review and to discuss state of the art research papers. Ability to write an academic essay. In-class presentation and discussion of the covered research topic.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Submission of a seminar paper (70%), in-class presentation of the paper (20%), active in-class cooperation during the presentations on the block-seminar day (10%).
<b>Responsible teacher of the module</b>	Dr. Holger Rau
<b>Additional teachers</b>	none
<b>Further information</b>	The course announcement and topic list can be found <a href="#">here</a> .

<b>Module number and title</b>	<b>E5056 Seminar on Game Theory</b>
<b>Form and applicability of the module</b>	Elective module for Master in Economics
<b>Duration of the Module</b>	One semester
<b>ECTS-Credits</b>	5
<b>Teaching method (hours per week)</b>	Block seminar (2 SWS)
<b>Workload</b>	150 hours consisting of class time, independent study and writing of the final paper.
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	10
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent, basic knowledge of game theory
<b>Goals and contents of the module</b>	The goal of the course is for students to formulate, design and implement a Wikipedia page on a topic related to Game Theory. Students can use either the German language Wikipedia or an English language Wikipedia. At a first meeting, students will be introduced to the concept of editing pages on Wikipedia and then chose their game theoretic topic. At the end of the semester, students will present their implementation of the wiki page to the

	group and “hand in” a final version of their wiki page. If successful, it is the goal of the course to publish the final work in the applicable Wiki, making it available to Wiki users worldwide.
<b>Expected competences acquired after completion of the module</b>	During the course, students will learn to use the editing tools and policies of Wikipedia. They will obtain deep knowledge of one specific game theoretic topic and learn to present this topic to viewers who are not very familiar with said topic. This includes learning optimal ways to present facts in a Wikipedia setup (e.g. use of pictures and hyperlinks).
<b>Requirements for the assignment of ECTS-credits and grades</b>	Seminar thesis (wiki format, 60%), presentation (40%)
<b>Responsible teacher of the module</b>	Dr. Peter Dürsch
<b>Additional teachers</b>	none
<b>Further information</b>	

<b>Module number and title</b>	<b>E5058 Regression Shrinkage Methods</b>
<b>Form and applicability of the module</b>	Elective module for Master in Economics
<b>Duration of the Module</b>	One semester
<b>ECTS-Credits</b>	5
<b>Teaching method (hours per week)</b>	Block seminar (2 SWS)
<b>Workload</b>	150 working hours (organizational meeting, block seminar, preparation of the seminar paper and presentation)
<b>Cycle of offer</b>	Irregular
<b>Expected number of students in class</b>	10
<b>Course language</b>	English
<b>Prerequisites</b>	E601-603 or equivalent
<b>Goals and contents of the module</b>	The seminar gives an introduction in regression shrinkage methods. Both econometric theory and (economic) applications will be included in the course. Details of the seminar will be discussed during the introductory meeting on 8 March 2018. Course website (available soon): <a href="http://www.farbmacher.de/mannheim/rsm/lecture.html">http://www.farbmacher.de/mannheim/rsm/lecture.html</a>
<b>Expected competences acquired after completion of the module</b>	"Big Data" methods have become increasingly important in data analysis. The students should be enabled to understand basic concepts in regression shrinkage and to utilize recent results for their own applied work.
<b>Requirements for the assignment of ECTS-credits and grades</b>	Presentation (40%) and term paper (60%)
<b>Responsible teacher of the module</b>	Dr. Helmut Farbmacher
<b>Additional teachers</b>	none
<b>Further information</b>	Recommended reading s: Hastie T., Tibshirani R., Friedman J. (2008): The Elements of Statistical Learning; Efron B., Hastie T. (2016): Computer Age Statistical Inference

## Additional Courses for Economists

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<b>Module number and title</b>	<b>E5051 Mannheim Competition Policy Forum</b>
<b>Form and usability of the module</b>	Compulsory course for Master in Economics with specialization Competition and Regulation Economics, elective course for Master in Economics with specialization Economics
<b>Responsible teacher of the module</b>	
<b>Cycle of offer</b>	Each semester
<b>ECTS credits</b>	
<b>Teaching method (hours per week)</b>	
<b>Workload</b>	
<b>Course language</b>	English
<b>Prerequisites</b>	E601- E603 (or equivalent; this course is only suitable for Economics students)
<b>Grading and ECTS credits</b>	
<b>Goals and Contents of the module</b>	<p>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.</p> <p>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.</p> <p>Starting from the autumn semester 2017, the MCPF is an official part of two master's programmes at the University of Mannheim. Participation is compulsory for economics students in the competition and regulation track and for law students in the master on competition and regulation law.</p>
<b>Expected Competences acquired after completion of the module</b>	
<b>Further information</b>	
<b>Expected number of students in class</b>	
<b>Contact information</b>	

## Curriculum

The Economics Track			The Competition and Regulation Economics Track			The 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		
<b>Specialization Phase</b>			<b>Specialization Phase: Compulsory Modules</b>			<b>Specialization Phase : Compulsory Modules</b>				
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		
			<b>Specialization Phase : Elective Modules</b>			<b>Specialization Phase: Elective Modules</b>				
			Specialized courses including 1-3 seminars				29 - 35	Specialized PhD courses and 1-2 seminars		40-46
								<b>Specialization Phase: Research Seminars</b>		
								CDSE seminar in the 3rd and 4th semester		0
					Faculty seminar		0			
<b>Research Phase</b>			<b>Research Phase</b>			<b>Research Phase</b>				
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		
<b>Total</b>		<b>120-126</b>	<b>Total</b>		<b>120-126</b>	<b>Total</b>		<b>120-126</b>		