UNIVERSITY OF MANNHEIM
Department of Economics

Course Catalog
Spring Semester 2019

MASTER OF ECONOMICS

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Contents

Compulsory Modules for the Competition and Regulation Economics Track

Module number and title	E505 Industrial Organization: Markets and Strategies
Form and usability of the module	Compulsory course for Master in Economics with specialization Competition and Regulation Economics, elective course for Master in Economics with specialization Economics
Responsible teacher of the module	Prof. Dr. Martin Peitz
Cycle of offer	Each spring semester
ECTS credits	14
Teaching method (hours per week)	Lecture (4) + exercise (2)
Workload	420 working hours, including 63 hours of class time and 357 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601- E603 (or equivalent; this course is only suitable for Economics students)
Grading and ECTS credits	Exam (180 min, 60%), two sets of graded take home exercises (20%), participation in exercise session (20%)
Goals and contents of the module	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 think strategically. 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.
Expected competences acquired after completion of the module	Ability to develop industrial organization models, ability so solve industrial organization models, ability to analyze business and competition cases
Further information	Essential reading: Paul Belleflamme and Martin Peitz (2015), Industrial Organization: Markets and Strategies, 2nd edition, Cambridge University Press
Expected number of students in class	30
Contact person	Name: Prof. Dr. Martin Peitz; Email: martin.peitz@gmail.com; Office: L7, 3-5, 3rd floor, room 330

Module number and title	E5046 Empirical Industrial Organization
Form and usability of the module	Compulsory course for M. Sc. Economics with specialization Competition and Regulation Economics, elective course for M. Sc. Economics
Responsible teacher of the module	Prof. Nicolas Schutz, Ph.D.
Cycle of offer	Each spring semester
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)
Workload	210 working hours, including 31.5 hours of class time and 178.5 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601- E603 (or equivalent; this course is only suitable for Economics students)
Grading and ECTS credits	Final exam (120 min, 70%), 2 graded take home exercises (30%)
Goals and contents of the module	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.
Expected competences acquired after completion of the module	Students acquire methodological skills that can be applied to answer empirical questions industrial organization and antitrust/competition policy.
Further information	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.
Expected number of students in class	30
Contact person	Name: Prof. Nicolas Schutz, Ph.D.; Email: schutz@uni-mannheim.de

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

Module number and title	Competition Law
Form and usability of the module	Compulsory course for Master in Economics with specialization Competition and Regulation Economics
Responsible teacher of the module	Prof. Dr. Friedemann Kainer
Cycle of offer	Each spring semester
ECTS credits	5
Teaching method (hours per week)	Lecture (2 SWS)
Workload	150 working hours, including 21 hours of class time and 129 hours of independent studies and exam preparation
Course language	English
Prerequisites	none
Grading and ECTS credits	Final exam (60 min, 100%)
Goals and contents of the module	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.
Expected competences	Students will be able to understand competition policy in reaction to, e.g., price collusion, distribution agreements, licenses of intellectual property or

acquired after completion of the module	joint ventures. They will be able to read cases of the European Court of Justice and apply their legal knowledge to new competition cases.
Further information	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.
Expected number of students in class	15
Contact person	Name: Prof. Dr. Friedemann Kainer

Elective Modules: Lectures

Module number and title	E505 Industrial Organization: Markets and Strategies
Form and usability of the module	Compulsory course for Master in Economics with specialization Competition and Regulation Economics, elective course for Master in Economics with specialization Economics
Responsible teacher of the module	Prof. Dr. Martin Peitz
Cycle of offer	Each spring semester
ECTS credits	14
Teaching method (hours per week)	Lecture (4) + exercise (2)
Workload	420 working hours, including 63 hours of class time and 357 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601- E603 (or equivalent; this course is only suitable for Economics students)
Grading and ECTS credits	Exam (180 min, 60%), two sets of graded take home exercises (20%), participation in exercise session (20%)
Goals and contents of the module	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 think strategically. 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.
Expected competences acquired after	Ability to develop industrial organization models, ability so solve industrial organization models, ability to analyze business and competition cases

completion of the module	
Further information	Essential reading: Paul Belleflamme and Martin Peitz (2015), Industrial Organization: Markets and Strategies, 2nd edition, Cambridge University Press
Expected number of students in class	30
Contact person	Name: Prof. Dr. Martin Peitz; Email: martin.peitz@gmail.com; Office: L7, 3-5, 3rd floor, room 330

Module number and title	E508 Multiple Time Series Analysis
Form and usability of the module	Elective module for M.Sc. Economics
Responsible teacher of the module	Prof. Dr. Carsten Trenkler
Cycle of offer	Each spring semester
ECTS credits	9.5
Teaching method (hours per week)	Lecture (3) + exercises (1)
Workload	285 working hours, including 42 hours of class time and 243 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-E603 (or equivalent)
Grading and ECTS-Credits	Final exam (90 min, 75%) and assignments (25%)
Goals and contents of the module	The lecture gives an introduction to multiple time series techniques and will cover vector autoregressive (VAR) processes, VAR estimation, VAR order selection and model checking. If time permits, we will also cover VARMA, Structural VAR models and so-called VEC models. The use of VAR models in forecasting, 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 E5038 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.
Expected competences acquired after completion of the module	The ability to use and understand the basics of multiple time series in forecasting, causality and impulse response analysis.

Further information	Lütkepohl, H. (2005), New Introduction to Multiple Time Series Analysis, Springer, Berlin, Chapters 1-4, 6-9, and 11-13, Appendices A-D. The list of covered research papers will be provided at the beginning of the course.
Expected number of students in class	20
Contact person	Name: Prof. Dr. Carsten Trenkler; Phone: (0621) 181-1851; Email: trenkler@uni-mannheim.de; Office: L7, 3-5, room 105

Module number and title	E557 Public Economics
Form and usability of the module	Elective course for M. Sc. Economics
Responsible teacher of the module	Duk Gyoo Kim
Cycle of offer	Once a year
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)
Workload	210 working hours, including 31.5 hours of class time and 178.5 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-E603 (or equivalent)
Grading and ECTS-Credits	One written exam (120 min, 100%)
Goals and contents of the module	This course focuses on the state's role in correcting market failures and on the optimal use of taxes. We will take a normative perspective, i.e., we ask what an ideal state would do in order to achieve distributive objectives. It will be composed by two parts. The first part will deal with market failures and public intervention. The second part will be devoted to tax theory. Part I: Market failures and public intervention 1. Public Goods 2. Externalities 3. Asymmetric Information 4. Price vs. quantity regulations 5. Local public goods Part II: Tax theory 1. Introduction to Taxation 2. Optimal commodity taxation 3. Many Person Ramsey Tax Rule 4. Production Efficiency Theorem 5. Non-linear taxation of income 6. Ricardian Equivalence 7. Tax Smoothing problem

Expected competences acquires after completion of the module	The course introduces the core topics in Public Economics. The course should prove useful for any student interested in analyzing policy issues.
Further information	Lecture notes will be available. Useful references are: Atkinson and Stiglitz, Lectures on Public Economics, Mc Graw-Hill, 1980 Rosen, Public Finance, 3rd Edition, 1992, Irwin, Boston. Salanié: Microeconomics of market failures Cornes and Sandler: The theory of externalities, public goods and club goods Salanie, The economics of taxation, MIT Press, 2003 Myles, Public Economics, Cambridge University Press, 1995 Mas-Collel, Whinston, Green, Microeconomic Theory, Harvard University Press 1996 Stiglitz, "Economics of the Public sector", 3rd Edition, 2000, Norton & Company. Hindriks and Myles, "Intermediate Public Economics", MIT Press.
Expected number of students in class	8-10
Contact person	Name: Duk Gyoo Kim; Email: d.kim@uni-mannheim.de

Module number and title	E581 International Trade
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Yanping Liu / Harald Fadinger
Cycle of offer	Each spring semester
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)
Workload	210 working hours, including 31.5 hours of class time and 178.5 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Final exam (50%), presentation (25%) and in-class quiz during presentations (25%)
Goals and contents of the module	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.
Expected competences acquired after completion of the module	Familiarity with modern international trade theory and empirical method in International Trade.
Further information	-
Expected number of students in class	20
Contact person	Name: Yanping Liu; Phone: (0621) 181-1910; Email: yanping.liu@uni-mannheim.de; Office: Room 318, L7, 3-5

Module number and title	E5014 Microeconometric Methods: Duration, Count Data, and Censored Regression Analysis
Form and usability of the module	Elective course for M.Sc. in Economics
Responsible teacher of the module	Daniel Gutknecht, Ph.D
Cycle of offer	Once a year
ECTS Credits	9
Teaching method (hours per week)	Lecture (2) + exercise (2)
Workload	270 working hours, including 42 hours of class time and 228 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Written exam (90min, 85%) + coursework including short presentation (15%)
Goals and contents of the module	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.

Expected competences acquired after completion of the module	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.
Further information	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)
Expected number of students in class	15
Contact person	Name: Daniel Gutknecht, Ph.D.; Email: daniel.gutknecht@uni-mannheim.de

Module number and title	E5031 Applied Labour Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Dr. Asmus Zoch
Cycle of offer	Each spring semester
ECTS credits	9
Teaching method (hours per week)	Lecture (2) + exercise (2)
Workload	270 working hours, including 42 hours of class time and 228 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Written exam (100 min, 70%) and exercises (30%)
Goals and contents of the module	This course will focus on different micro-econometric models using actual empirical studies from the field of labor economics. Starting from the standard theory of competitive labor 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 analyze actual labor 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.
Expected competences acquired after completion of the module	Ability to use Stata to conduct independent micro-econometric analysis and apply advanced micro-economic models.
Further information	Introductory literature: • Wooldridge, Jeffrey M. (2002), Econometric Analysis of Cross Section and Panel Data, Cambridge, Mass.: MIT Press. Chapters 10-20. • George J. Borjas, Labor Economics
Expected number of students in class	25
Contact person	Name: Dr. Asmus Zoch; Phone: (0621) 181-1842; Email: zoch@uni-mannheim.de; Office: Room 123

Module number and title	E5035 Environmental Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Ulrich Wagner, Ph.D
Cycle of offer	Each spring semester
ECTS credits	9.5
Teaching method (hours per week)	Lecture (3) + exercises (1)
Workload	285 working hours, including 42 hours of class time and 243 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Final exam (120 min, 70%) and presentation of an article (30%)
Goals and contents of the module	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.

Expected competences acquired after completion of the module	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.
Expected number of students in class	20
Contact person	Name: Prof. Ulrich Wagner, Ph.D.; Email: wagner@vwl.uni-mannheim.de

Module number and title	E5038 Empirical Macroeconomics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Dr. Matthias Meier
Cycle of offer	Each spring semester
ECTS credits	5
Teaching method (hours per week)	Lecture (2)
Workload	150 working hours, including 21 hours of class time and 129 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Final exam (90 min, 60%) and problem sets (40%)
Goals and contents of the module	This course covers both methods and applications in empirical macroeconomics. On the methodological side, we first discuss narrative approaches to identify structural shocks and univariate methods to study their propagation. The second and larger methodological block covers structural vector autoregressive (SVAR) models. The focus will be on various identification strategies (e.g., short-run/long-run restrictions, sign restrictions, external instruments), but we will also cover inference, factor models, nonlinear models. The lectures, and even more so the assignment, introduce a range of applications. Those include the analysis of technology shocks, monetary policy shocks, and fiscal policy shocks.
Expected competences acquired after completion of the module	The course introduces students to the econometric theory and macroeconomic applications of structural vector autoregressions.
Further information	Recommended literature: Ramey (Handbook of Macroeconomics, Volume 2A, Chapter 2:

	Macroeconomic Shocks and Their Propagation) Kilian and Lütkepohl (Structural Vector Autoregressive Analysis, preliminary: see http://www-personal.umich.edu/~lkilian/book.html) Lütkepohl (New Introduction to Multiple Time Series Analysis, 2005)
Expected number of students in class	10
Contact person	Name: Prof. Dr. Matthias Meier; Email: m.meier@uni-mannheim.de

Module number and title	E5046 Empirical Industrial Organization
Form and usability of the module	Compulsory course for M. Sc. Economics with specialization Competition and Regulation Economics, elective course for M. Sc. Economics
Responsible teacher of the module	Prof. Nicolas Schutz, Ph.D.
Cycle of offer	Each spring semester
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)
Workload	210 working hours, including 31.5 hours of class time and 178.5 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601- E603 (or equivalent; this course is only suitable for Economics students)
Grading and ECTS credits	Final exam (120 min, 70%), 2 graded take home exercises (30%)
Goals and contents of the module	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.
Expected competences acquired after completion of the module	Students acquire methodological skills that can be applied to answer empirical questions industrial organization and antitrust/competition policy.
Further information	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.
Expected number of students in class	30

Contact person	Name: Prof. Nicolas Schutz, Ph.D.; Email: schutz@uni-mannheim.de

Module number and title	E5059 Public Service Delivery in Developing Countries
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Dr. Nicholas Barton
Cycle of offer	Irregular
ECTS credits	9
Teaching method (hours per week)	Lecture (2) + exercise (2)
Workload	270 working hours, including 42 hours of class time and 228 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Final exam (90 min, 60%), take home assignment (20%), presentation (15%), class participation (5%)
Goals and contents of the module	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.
Expected competences acquired after completion of the module	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.
Further information	Recommended literature will be discussed in class.
Expected number of students in class	15
Contact person	Name: Dr. Nicholas Barton; Email: nibarton@mail.uni-mannheim.de

Module number and title	E5062 Applied Microeconomics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Laura Grigolon
Cycle of offer	Each spring semester
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)
Workload	210 working hours, including 31.5 hours of class time and 178.5 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Assignments (4, 75%), presentation (20%), participation in class (5%)
Goals and contents of the module	This course is focused on theory-based empirical analysis in economics. The course will provide you a hands-on introduction to some of the techniques that economists use for econometric estimation. The course first provides a brief introduction to numerical maximization and along with standard estimation methods such as Method of Moments, Maximum Likelihood, and constrained optimization. Then we will move to discrete choice models, including logit, nested logit, and probit, and discrete games, partial identification and dynamic models on a finite and infinite horizon.
Expected competences acquired after completion of the module	Students will develop an extensive understanding of econometric analysis, especially through tutorials in which they will be provided with programming code and hands-on experience in using new discrete choice techniques for practical applications. The students will learn how to use MATLAB and its optimization toolbox.
Further information	-
Expected number of students in class	-
Contact person	Name: Laura Grigolon; Email: grigolo@mcmaster.ca

Module number and title	E5065 Health Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Cristina Bellés-Obrero, PhD

Cycle of offer	Each spring semester
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)
Workload	210 working hours, including 31.5 hours of class time and 178.5 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601- E603 (or equivalent)
Grading and ECTS credits	Midterm exam (20%) + final exam (60%) + assignments (20%)
Goals and contents of the module	This course is intended to provide an overview of the field of health economics. We will first learn how to apply economic theory for the analysis of health and healthcare issues. In particular we will examine in detail the models of demand for health and healthcare, the supply of health care, and the demand for insurance. Secondly, we will revise and evaluate some of the main empirical findings in health economics. The specific topics covered include, among others, the relationship between socioeconomic status and health, unhealthy behaviors, the behavioral economics of health, the problems of externalities in health, or the relationship between health and economic development.
Expected competences acquired after completion of the module	Students will have a comprehensive knowledge of the most relevant issues and methods used in health economics. Moreover, students will be able to apply different microeconomic models for the analysis of health and health care issues. Students will be able to identify and critically evaluate different health policies or interventions.
Further information	-
Expected number of students in class	-
Contact person	Name: Cristina Bellés-Obrero; Email: christina.belles@udg.edu

Module number and title	E5067 Behavioral Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Dr. Peter Dürsch
Cycle of offer	Irregular
ECTS credits	7
Teaching method (hours per week)	Lecture (2) + exercise (1)

Workload	210 working hours, including 31.5 hours of class time and 178.5 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601- E603 (or equivalent)
Grading and ECTS credits	tba
Goals and contents of the module	The course will expose students to a number of major topics in Behavioral Economics, and will link theory with empirical applications. In particular, we will cover the following topics: • Charitable Giving • Social Preferences • Reciprocity and Gift Exchange • Punishment • Self-control and procrastination • Time preferences and prospect theory • Collective Choice
Expected competences acquired after completion of the module	Students will acquire a basic understanding of behavioral-economic theory and understand how to design suitable tests using experiments.
Further information	-
Expected number of students in class	20
Contact person	tba

Module number and title	E5068 Empirical Methods in Public Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Arthur Seibold, Ph.D.
Cycle of offer	Each spring semester
ECTS credits	7.5
Teaching method (hours per week)	Lecture (3)
Workload	210 working hours, including 31.5 hours class time and 178.5 hours for independent studies and exam preparation
Course language	English

Prerequisites	E601- E603 (or equivalent)
Grading and ECTS credits	Final exam (120 minutes, 80%) and, problem sets (20%)
Goals and contents of the module	This course aims at providing a thorough understanding of the main empirical methods used in modern public economics, while introducing students to a range of topics of recent research in the area. Topics include both public expenditure policies such as social insurance as well as tax policies such as income taxation. The discussion of empirical methods focuses on credible, quasi-experimental research designs including instrumental variables, difference-in-differences, regression discontinuity and bunching estimators. Recent research papers serve as examples to guide the discussion of empirical methods.
Expected competences acquired after completion of the module	Students will acquire thorough knowledge and understanding of empirical methods used in modern public economics. They will be able to apply their knowledge of econometrics in analyzing research and policy questions in public economics. The course aims at enabling students to critically assess and evaluate research designs they may encounter in their subsequent studies or professional life. Problem sets aim at synthesizing the discussion of topics in public economics with applications of empirical methods.
Further information	-
Expected number of students in class	20
Contact person	Name: Prof. Arthur Seibold, Ph.D.; Email: seibold@uni-mannheim.de

Module number and title	E5069 Power Analysis
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Dr. Ingo Steinke
Cycle of offer	Irregular
ECTS credits	5
Teaching method (hours per week)	Lecture (2 SWS)
Workload	150 working hours, including 21 hours of class time and 129 hours of independent studies and exam preparation
Course language	English
Prerequisites	Advanced Econometrics I or equivalent
Grading and ECTS credits	Final exam (60 min)

Goals and contents of the module	For the planning of statistical studies it is important to know how to choose the sample size in order to be able to prove a specific effect. Moreover, it is useful to compute the power of a test under certain alternatives in order to know what conclusion can be made even if the null hypothesis is not rejected. In the lecture the power of tests is derived and computed under alternatives in several models, e.g. for simple t-tests and in variance, regression, and meta analysis models. The theory behind the formulas will be discussed. Using Stata the power of the tests is computed and sample size computations are performed.
Expected competences acquired after completion of the module	The students know distributional properties of the normal, t-, chi-square, and F-distribution and know how these distributions are constructed. For specific models the students can derive the formulas for the computation of the power. They can compute the power of tests using Stata and determine the sample size necessary to distinguish a specific effect.
Further information	-
Expected number of students in class	15
Contact person	Name: Ingo Steinke; Phone: (0621) 181-1940; Email: isteinke@rumms.uni-mannheim.de; Office: L7, 3-5, Room 142; Office hours: Tue und Wed, 17:15-18:15

Module number and title	E5078 Automation, Globalization, and Inequality
Form and usability of the module	Elective module for M.Sc. in Economics
Responsible teacher of the module	Prof. Dr. Sebastian Findeisen
Cycle of offer	Each spring semester
ECTS credits	5
Teaching method (hours per week)	Lecture (2 SWS)
Workload	150 working hours, including 21 hours class time and 129 hours of independent studies and exam preparation
Course language	English
Prerequisites	Advanced Econometrics I or equivalent
Grading and ECTS credits	Final exam (90 minutes, 80%) and participation (20%).
Goals and contents of the module	The rapid and unanticipated growth of earnings inequality in many developed economies in the last 30 years, most notably in the U.S., U.K. and also in Germany, has triggered controversial debates.

	This course deals with the causes of economic inequality. We start by reviewing the basic facts about the evolution of income and wage inequality in the EU and the US in the last decades. We then subsequently discuss the role of technology, education, international trade and offshoring as determinants of inequality. We draw on many recent academic papers (theoretical and empirical) from the fields of Macroeconomics, Labor Economics and International Trade.
Expected competences acquired after completion of the module	Understanding of the key facts of income inequality in developed economies. Understanding of the different mechanisms leading to inequality, esp. the role of technology, education, international trade and offshoring as determinants of inequality. Formal understanding of theoretical and empirical approaches to study inequality.
Further information	Academic papers will be the main source
Expected number of students in class	7
Contact person	Name: Prof. Dr. Sebastian Findeisen; Email: findeisen@uni-mannheim.de

Module number and title	E5082 Econometrics of Networks
Form and usability of the module	Elective module for M.Sc. Economics
Responsible teacher of the module	Alexander Kreiß
Cycle of offer	Irregular
ECTS credits	9.5
Teaching method (hours per week)	Lecture (3) + exercises (1)
Workload	300 hours, including 42 hours of class time and 258 hours of independent studies and exam preparation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Final exam (90 min, 60%) and assignments (40%)
Goals and contents of the module	Many observations occur as networks, e.g., association networks between users of social media platforms. In this course we want to study in which situations this type of data comes up and how it can be treated statistically. We will formulate various empirical quantities which can be used to describe different features of networks. While doing this we look at examples and try to get an idea of how these features are usually exhibited in real-world data examples. Then, we will investigate how networks can be appealingly plotted and how the network can be partitioned in order to reveal a hidden group

	structure. We will see that sampling of subnetworks poses new problems and how to overcome them in certain situations. In the last part of the course we will study models for random networks as well as prediction of future behavior of the network itself as well as functions on the network (e.g. the spreading of opinions through a network). Throughout the course, we will try to illustrate concepts and features of networks with examples, both real-world data as well as simulated data (for this part R knowledge will be helpful).
Expected competences acquired after completion of the module	Attendants of the course will develop an understanding for typical behavior of network data in different real-world situations. Moreover, they will be able to understand how network data differs from other statistical observations and how to analyze it. Lastly, attendants will acquire modelling knowledge for functions on networks and the network itself.
Further information	Literature • Eric Kolaczyk, Statistical Analysis of Network Data • Mark Newman, Networks – An Introduction • Matthew Jackson, Social and Economic Networks
Expected number of students in class	15
Contact person	Name: Alexander Kreiß; Phone: (0621) 181-1929; Email: kreiss@uni-mannheim.de; Office: L7, 3-5, Room 129; Office hours: Tuesday 15:00 (if possible email before please)

Elective Modules: Seminars

Module number and title	E506 Seminar on Human Capital Formation
Form and usability of the module	Elective Course for M.Sc. Economics
Responsible teacher of the module	PD Dr. Friedhelm Pfeiffer
Cycle of offer	Each spring semester
ECTS credits	5
Teaching method (hours per week)	Seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-603 (or equivalent); interest in research on the economics and econometrics of education and human capital formation

Grading and ECTS credits	Seminar paper (50%), oral presentation (25%), discussion (25%)
Goals and contents of the module	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.
Expected competences acquired after completion of the module	Ability to write, present and defend an academic essay.
Further information	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.
Expected number of students in class	10
Contact person	Name: PD Dr. Friedhelm Pfeiffer; Phone: (0621) 123-150; Email: friedhelm.pfeiffer@zew.de

Module number and title	E530 Topics in Industrial Organization
Form and usability of the module	Elective course for M. Sc. Economics
Responsible teacher of the module	Prof. Ph. D. Nicolas Schutz
Cycle of offer	Each spring semester
ECTS-Credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-603 (or equivalent).; no prerequisites for MMM students. Not suitable for Business Mathematics students.

Grading and ECTS credits	Classroom presentation (30% of final grade), Seminar paper report (70% of final grade)
Goals and Contents of the module	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.
Expected Competences acquired after completion of the module	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.
Further information	-
Expected number of students in class	10
Contact person	Name. Prof. Ph. D. Nicolas Schutz; Email: schutz@uni-mannheim.de

Module number and title	E5020 Topics in Empirical Microeconomics
Form and usability of the module	Elective module for M. Sc. Economics
Reponsible teacher of the module	Prof. Michelle Sovinsky, Ph.D.
Cycle of offer	Once a year
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Presentation and paper

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.
Further information	Paper topics will be selected from current publications in empirical microeconomics
Expected number of students in class	15
Contact person	Name: Prof. Michelle Sovinsky, Ph.D.; Email: msovinsky@econ.uni-mannheim.de

Module number and title	E5028 Topics on Monetary Union
Form and usability of the module	Elective course for M. Sc. Economics
Responsible teacher of the module	Prof. Dr. Antoine Camous
Cycle of offer	once a year
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-603 (or equivalent); for MMM and Business Mathematics students: good foundations in macroeconomics.
Grading and ECTS credits	The final grade will reflect both the content and the clarity of the presentation (30%), the report (40%), and the report refereed (30%).
Goals and contents of the module	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. This seminar will review theoretical and empirical frontier research to address the following core questions: 1. Why would countries form a Monetary Union?

	2. How to design institutions then? 3. How to measure the costs and benefits of a Monetary Union? 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
Expected competences acquired after completion of the module	Three interrelated objectives: 1. Review scientific research within its literature, extract its core idea and critically assess the relevance of the idea. 2. Communicate effectively (oral presentation and written reports) 3. Understand and apply the academic peer-review process. 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).
Further information	The class description can change prior to the start of the seminar.
Expected number of students in class	5-15
Contact person	Name: Prof. Dr. Antoine Camous; Phone: (0621) 181-0186; Email: camous@uni-mannheim.de; Office: 2.43; Office hours: Wed 4-5pm.

Module number and title	E5036 Economics of Arts and Culture
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher	Dr. Andrej Svorenčík
Cycle of offer	Once a year
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-E603 (or equivalent); for MMM and Business Mathematics students: good foundations in economic theory
Grading and ECTS credits	Preparation (10%), presentation & class participation (50%), seminar paper (40%)
Goals and contents of the module	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.
Expected competences acquired after completion of the module	Students develop skills in analyzing cultural economics issues and understanding their effects on economic agents using models, case studies and empirical methods.
Further information	• Towse, Ruth. 2010. A Textbook of Cultural Economics. Cambridge, UK; New York: Cambridge University Press. • Ginsburgh, Victor A. and Throsby, David (Eds.) 2006 & 2014. Handbook of the Economics of Art and Culture. 2 volumes. Available online through the university library: http://www.sciencedirect.com/science/handbooks/15740676/1 and http://www.sciencedirect.com/science/handbooks/1574067
Expected number of students in class	10 students maximum
Contact person	Name: Dr. Andrej Svorenčík; E-Mail: svorencik@uni-mannheim.de

Module number and title	E5054 Topics in Environmental and Energy Economics
Form and usability of the module	Elective module for M. Sc. in Economics
Responsible teacher of the module	Harim Kim, Ph.D.
Cycle of offer	Irregular
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-603 or equivalent. Basic knowledge of empirical industrial organization and econometrics are advantageous.
Grading and ECTS credits	Seminar participants will choose a paper from the reading list and present it in the seminar. Also, participants have to write a short seminar paper (max 10 pages) that summarizes and critically evaluates the paper they presented. The seminar paper and the presentation contribute equally to the final grade (presentation 50 %, seminar paper 50%).

Goals and content of the module	The seminar covers recent research in environmental and energy economics. The course gives introduction to empirical studies of important topics in environmental and energy economics. The empirical papers we will study use a wide array of methods and approaches, ranging from theoretical modeling, to quasi-experimental research designs, to structural modelling and estimation. Topics include emissions reduction policy in the U.S. and EU, electricity market (market power and regulation) and natural resource market etc. .
Expected competences acquired after completion of the module	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 and energy economics. The students have broadened and sharpened their analytical abilities as well as their presentation and discussion skills.
Further information	-
Expected number of student in class	10
Contact person	Name: Harim Kim, Ph.D.; Phone: (0621) 181-1873; Email: harimkim@uni-mannheim.de; Office: L7, 3-5 - 3.09; Office hours: by appointment

Module number and title	E5063 IO and Development
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Helena Perrone
Cycle of offer	Each spring semester
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-603 or equivalent
Grading and ECTS credits	Presentation (40 %) + class participation (10 %) + seminar paper (50 %)
Goals and contents of the module	The course aims to cover relevant contributions in the recent but growing area Industrial Organization and Development, including IO of Developing Economies, how to adapt standard Competition Policy and productivity measurement models when markets are incomplete or inexistent, and IO methods applied to Development questions. The focus of the course is on empirical work.

Expected competences acquired after completion of the module	Students will acquire knowledge of the latest papers in the area of IO and Development. They will be able to recognize new possible applications and how previous literature in the area can be extended. By being exposed to the literature and participating in discussions, they will also develop skills that will enable them to approach problems related to IO in developing.
Further information	The reading list will be provided in the first meeting (in February). Presentations will be blocked in 2 days in April.
Expected number of students in class	10
Contact person	Name: Prof. Helena Perrone; Email: helena.perrone@upf.edu

Module number and title	E5079 New Approaches to Economic and Public Policy
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Dr. Sebastian Findeisen
Cycle of offer	Irregular
ECTS credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 working hours for organizational meeting, block seminar, preparation of the seminar paper, and presentation
Course language	English
Prerequisites	Advanced Econometrics I or equivalent
Grading and ECTS credits	Grading: term paper (50%), presentation (30%), participation + leading discussion (20%)
Goals and contents of the module	There is a general perception of rising discontent with increased levels of inequality. Populist critics in many countries of liberal and globalized economies have fueled a backlash directed at the status-quo. In addition, there is a general anxiety in the wake of rising automation and artificial intelligence. In this seminar, we study new and creative approaches to economic and public policy in light of these issues. The core of the class will be based on a recent book by Glen Weyl and Eric Posner.
Expected competences acquired after completion of the module	Learn the key challenges facing economic and public policy. Develop a deep understanding of these challenges. Develop an understanding how policy can react to these new challenges.
Further information	-

Expected number of students in class	6 (limited to 12 students)
Contact person	Name: Prof. Dr. Sebastian Findeisen; Email: findeisen@uni-mannheim.de

Module number and title	E5083 Current Topics in Social Policy and Labor Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Ph.D. Han Ye
Cycle of offer	Each spring semester
ECTS-Credits	5
Teaching method (hours per week)	Block seminar (2)
Workload	150 working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-603 (or equivalent)
Grading and ECTS credits	Presentation and Seminar Paper
Goals and Contents of the module	This seminar covers current research topics in empirical labor economics in order to expose students to some of the most recent open questions and tools used to address them in the field. We will study immigration; inequality and intergenerational mobility; how behavioral economics contributes to public policy and labor policy; theories of gender discrimination in the labor market and explore the link between family structure; etc. Students will choose a paper from the reading list and present it in the seminar. Moreover, they will write a short seminar paper which summarizes and critically evaluates/presents the chosen paper.
Expected Competences acquired after completion of the module	An important goal of the course is to provide students with the necessary knowledge to understand the most discussed labor topics. Students should have a good understanding of the application of economic theory and empirical methods to issues in current labor policy topics; learn the read actively and discuss critically research papers, and learn the necessary presentation skills to deliver their findings and work.
Further info	-
Expected number of students in class	15-25
Contact person	Name: Ph.D. Han Ye

Module number and title	E5084 Economic Analysis of Voting: Theory and Practice
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Charles Louis-Sidois
Cycle of offer	Irregular
ECTS-Credits	5
Teaching method (hours per week)	Seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601-603 (or equivalent); interest in research on the economics and econometrics of education and human capital formation
Grading and ECTS credits	Presentation (50%) + Final project (50%). Students will present a paper in class and write a research proposal, which could be an original extension of an existing paper.
Goals and Contents of the module	This course is intended to provide an overview of the recent economic literature on voting. The topics covered include strategic voting, information aggregation, turnout, vote buying… We will study theoretical as well as applied papers, though the theoretical dimension will be emphasized.
Expected Competences acquired after completion of the module	• Subject-related competences: The students understand the most prominent models of the literature on voting. They are able to distinguish the main trends in the economic literature on voting. • Methodological competences: The students are able to understand and reproduce the main results of the literature. They are able to assess critically the papers of the field and to relate them to the literature. The students are able to synthesise and present papers. The students are able to propose original research ideas.
Further info	-
Expected number of students in class	tba
Contact person	Name: Charles Louis-Sidois; Phone: (0621) 181-2389; Email: charles.louissidois@uni-mannheim.de; Office: B6, 30-32 – Raum 324, 68161 Mannheim

Module number and title	E5085 Topics in Competition Economics
Form and usability of the module	Elective course for M.Sc. Economics
Responsible teacher of the module	Prof. Achim Wambach, Ph.D.
Cycle of offer	Irregular
ECTS-Credits	5
Teaching method (hours per week)	Seminar (2)
Workload	150 hours working hours for organizational meeting, block seminar, preparation of the seminar paper and presentation
Course language	English
Prerequisites	E601- E603 (or equivalent)
Grading and ECTS credits	Seminar presentation (50%) + report (50%). Seminar participants have to write a seminar paper (22,000 characters including spaces), in which they analyze a problem related to competition economics in the context of one of the topics listed above. 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.
Goals and Contents of the module	The seminar covers topics that reflect current developments in the academic and policy-oriented literature in competition economics. Students present and discuss papers on (1) the intersection of intellectual property law and competition policy, (2) recent trends in price markups and market concentration (with causes and consequences), and (3) anticompetitive effects of common ownership and minority shareholders.
Expected Competences acquired after completion of the module	Students have gained knowledge in recent developments in the literature on competition economics. They are able to apply their expertise and methods to analyze and evaluate ongoing debates in both the academic and the policy-oriented literature. The students have broadened their analytical abilities as well as their presentation and discussion skills.
Further information	Additional teachers: Dr. Bernhard Ganglmair, contact: bernhard.ganglmair@zew.de
Expected number of students in class	10
Contact person	Name: Dr. Bernhard Ganglmair; Email: bernhard.ganglmair@zew.de

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
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**