Course registration

If you want to join an elective course please send your **registration by e-mail** to econgrad<at>uni-mannheim.de **no later than September 1st.**

Information for exchange students, MMM students and Business Mathematics students:

Please note that you can choose freely from our elective courses as long as you fulfill the prerequisites mentioned there. (In case of doubt, please contact the lecturers for more information about the prerequisites and to discuss if you fulfill them.) **Core courses** are **not open** for exchange students and students from other programs.

Pre-course

E600 Mathematics

Who?

Simona Helmsmüller, L9-7, Room 303 simona.helmsmueller@gess.uni-mannheim.de Office hours: I will be available and ready to answer your questions during the whole fall term. Just send me an e-mail, we can arrange a meeting if necessary.

When?

This is a block course and it will take place from the 29th of August 2016 until the 2nd of September 2016. The course will consist of lectures and exercise sessions, which take place at the following hours:

Monday, Tuesday and Friday: 08:30h to 12:00h, 13:00h to 16:00h **Wednesday and Thursday**: 08:30h to 13:30h, 16:00h to 17:30h (late session so you can participate at orientation events on those days)

Despite these official hours, we shall be flexible to divide our time between lectures, exercise and breaks each day so as to best suit our needs.

In addition, you will need to put some extra time into preparing the exercises for the next day every evening. Problem sets will be handed out during the lecture and most of them will be discussed during the next days. I expect every participant to actively contribute to the discussions.

Where?

All morning and afternoon sessions will take place in L 15, 1-6, room A 001. Getting used to Mannheim's street addresses system may take a while for new comers. So here is the <u>map</u>.

What?

This course is a preparatory math course. I will thus try to make sure that you do not start the

Master program without mastering what can be considered as the most basic mathematical concepts for an economics graduate student. My objective is for you to:

- Grasp key concepts and develop an intuition for mathematical constructs;
- Get familiar with mathematical notation and logic;
- Know when and how to apply the main theorems covered in this course.

The plan therefore is as follows:

- Introduction to vector spaces
- Introduction to matrix algebra
- Multivariate calculus and integral calculus
- Convex Optimization
- Ordinary least squares estimation (if time permits)

Note that this structure is not final yet and there may be some changes.

While the lecture sessions will be concept- rather than proof-oriented, by the end of the course, at the very least you should be comfortable with mathematical notation and logic, and should know that you need not be scared of formal proofs. At the same time, while the exercises will not be of the "cookbook" form, they will serve as a good warm-up for what will follow in the first term master courses.

For whom?

Already feel familiar with all the above mentioned theorems? Great! The course is not mandatory but an offer to ensure that you will be able to follow through the compulsory lectures of the first term. If you are not sure whether your understanding of the concepts suffices, you can look through <u>last year's exercises</u>. If you know how to approach most of the problems, you will most likely be fine. If there are any uncertainties, I highly recommend you participate at the course and refresh your memory.

Any Prerequisite?

Almost none. I will assume that you are well acquainted with basic logic and naïve set theory though. To make sure you indeed are, you should carefully read through the notes (chapter 0) downloadable at my webpage (see below). We will go through some exercises on these topics in the first lecture and you will get the most out of it if you are well prepared.

Any Readings?

Lecture notes, slides and problem sets will be uploaded on my <u>webpage</u> in due time. If you feel you need some additional readings, you may want to have a look at Carl P. Simon / Lawrence Blume (1994): Mathematics for Economists, 1st Edition. W.W. Norton & Company, but there are many other good books around and I recommend you to have a look at many of them before you buy any to find one which best suits your personal needs.

How to attend?

You are kindly asked to register for the course via **simona.helmsmueller@gess.uni-mannheim.de**

Core Courses (no registration necessary)

E601 Advanced Microeconomics (lecture + exercise)

Dr. Luna Bellani

ECTS-Credits: 10

Teaching method: Lecture (4 SWS) and Exercise (2 SWS)

Workload: 300 working hours, containing 63 hours class time and 237 hours independent study time and preparation for the exam

Prerequisites: This course is compulsory in the first semester of the Master's program in economics. Students should be familiar with mathematical methods as covered in the Prep course E600. Some prior background in microeconomics on the level of Varian, "Intermediate Microeconomics", or Pindyck and Rubinfeld, "Microeconomics", is helpful.

Goals and Contents of the module: This course is a rigorous introduction to microeconomic theory. It covers classical consumer demand under certainty, utility maximization and cost minimization, choice under uncertainty, fundamentals of game theory, games under incomplete information, and different equilibrium refinement concepts. In the second part, the course addresses standard principal-agent problems under asymmetric information (adverse selection and moral hazard). General equilibrium models are also investigated. The material will be covered from scratch, but at a fast pace.

Expected competences acquired after completion of the module: After successful participation in this course, students will be familiar with the basic concepts of microeconomics like utility maximization, decisions under uncertainty, perfect and imperfect competition, Nash equilibrium in games of complete and incomplete information. They have discussed some important applications and will have learned some methods and modelling techniques that are important for other courses.

Requirements for the assignment of ECTS-Credits and Grades: Written exam: 120 min (70% of grade), Midterm exam: 90 min (30% of grade)

Time & Venue: Lecture: Tuesday, 15:30 to 17:00 in 001 Hörsaal, L7, 3-5 Wednesday, 08:00 to 10:00 in S031 Seminarraum L7, 3-5 Start: 06.09.2016, End: 07.12.2016

Exercise: Group 1: Wednesday, 15:30 to 17:00 in S031 Seminarraum, L7, 3-5 Group 2: Thursday, 08:30 to 10:00 in S031 Seminarraum, L7, 3-5 Start: 07.09.2016, End: 08.12.2016

Additional teachers: Teaching assistant Can Çelebi

Recommended Textbook:

Jehle and Reny "Advanced Microeconomic Theory"

Additional References:

Mas-Colell, A., Whinston, M. D. Green, J. (1995). Microeconomic Theory. Oxford University Press.

Varian H. R. (1992). Microeconomic Analysis (third edition). Norton & Company. New York and London.

Varian H. R. (1992). Microeconomic Analysis (third edition). Norton & Company. New York and London.

E602 Advanced Macroeconomics (lecture + exercise)

Prof. Dr. Johannes Pfeifer

ECTS-Credits: 10

Teaching method: Lecture (4 SWS) and Exercise (2 SWS)

Workload: 300 working hours, containing 63 hours in class and 237 hours independent study time and preparation for the exam

Expected number of students in class: 40

Prerequisites: *Master in Economics:* Good working knowledge of calculus (constrained optimization, multivariate Taylor expansion, geometric series). Not open for students from other programs.

Goals and Contents of the module: The course familiarizes students with the essential concepts of modern macroeconomic theory at an advanced level.

A particular focus will be placed on learning how to use formal microfounded models to analyze and understand both economic growth dynamics and business cycle fluctuations. In order to guide the economic modeling, the course will use empirical data to generate stylized facts about economic growth and business cycles that useful models must aim to explain, both quantitatively and qualitatively.

In terms of economic models, the following topics will be covered:

- Growth Theory: the Solow Model, the Ramsey-Cass-Koopmans Model, and Endogenous Growth Theory.

- Business Cycles: the Real Business Cycle Model, the Classical Monetary Model, and the basic New Keynesian Model.

During the course students will also learn the necessary techniques to solve dynamic stochastic models both analytically and numerically using Dynare.

While the course will be mostly concerned with positive economic theory, students will also learn to derive and understand the normative and policy implications of the covered models.

Expected Competences acquired after completion of the module: Completion of this course is a core requirement for our Master programs in Economics. It prepares students to

successfully participate in advanced field courses offered in this program. Together with the companion courses in microeconomics and econometrics, this course will enable students to develop their own research agenda for the Master program as well as a PhD program that they may want to pursue subsequent to this Master program. Having completed these courses, students will feel comfortable reading journal articles at the frontier of modern economic research.

A particular focus will be placed on obtaining technical skills, i.e. log-linearization techniques, solving linear rational expectations models, etc.

Requirements for the assignment of ECTS-Credits and Grades: Written midterm exam (60 min, 50%), final exam (60min, 50%), plus assignments (up to 10% bonus)

Time & Venue:

Lecture: Tuesday, 12:00 to 13:30 in 001 Hörsaal, L7, 3-5 Wednesday, 12:00 to 13:30 in 001 Hörsaal, L7, 3-5 Start: 06.09.2016, End: 07.12.2016

Exercise: Group 1: Tuesday, 17:15 to 18:45 in P 044 Seminarraum, L7, 3-5 Group 2: Wednesday, 17:15 to 18:45 in P 044 Seminarraum, L7, 3-5 Start: 06.09.2016, End: 07.12.2016

Additional teachers: Xiaodi Wang

Additional information: The mandatory textbook chapters and articles will be announced in the lecture. The following books are good references for the topics covered: Acemoglu, Daron (2008), Introduction to Modern Economic Growth, Princeton University Press Sala-I Martin, Xavier/Barro, Robert (2003): Economic Growth, MIT Press, 2nd edition McCandless, George (2008), The ABCs of RBCs - An Introduction to Dynamic Macroeconomic Models, Harvard University Press Romer, David (2011): Advanced Macroeconomics, McGraw-Hill, 4th edition King, R. Rebelo, S. (1999): Resuscitating Real Business Cycles, in: Taylor/Woodford (Hrsg.): Handbook of Macroeconomics, Vol. 1, pp. 927-1007. Gali, Jordi (1999): Technology, Employment, and the Business Cycle: Do Technology Shocks Explain Aggregate Fluctuations?, American Economic Review 89(1), pp. 249-271 Gali, Jordi (2008): "Monetary Policy, Inflation, and the Business Cycle", Princeton University Press Walsh, Carl. E. (2010): Monetary Theory and Policy, MIT Press, 3rd edition **E603** Advanced Econometrics (lecture + exercise)

Prof. Dr. Markus Frölich

ECTS-Credits: 10

Teaching method: Lecture (4 SWS) and Exercise (2 SWS)

Workload: 300 working hours, containing 63 hours in class and 237 hours independent study time and preparation for the exam

Expected number of students in class: 40

Prerequisites: Master in Economics: None. Not open for students from other programs.

Goals and Contents of the module: The goal of the module is to offer advanced treatment to econometric theory and to serve as the gate way to further advanced theoretical and applied econometric modules offered in the economics graduate program at the Department of Economics in Mannheim.

The module offers a revision of undergraduate level econometrics before moving on to extensive coverage of large-sample theory and some organizing estimation principles such as GMM and Extremum estimators. Asymptotic properties of these estimators are also the focus of the module as well as non-linear models and the treatment of serial correlation.

Expected Competences acquired after completion of the module:

- Attain advanced theoretical knowledge in econometrics in the specific topics the module covers at a high technical and mathematical level.

- Be familiar with current theories and recent developments in the specific topics of focus for the module.

- Attain a higher/advanced level of analytical capability.

- Be in a position to take on follow-up advanced theoretical and applied econometrics modules.

- Attain the level of competence that permits independent undertakings in search of new knowledge in the specialist areas the module covers.

- Attain the level of competence required to carry out (theoretical) research-oriented projects independently.

- To be in a position to exchange information, ideas, and solutions with experts of the field on a scientific level as well as with laymen.

- To be able to communicate and to work effectively and efficiently with people and in groups.

- Graduates are able to communicate precisely in the English specialist language.

Requirements for the assignment of ECTS-Credits and Grades: Written exam (120 min)

Time & Venue:

Lecture:

Thursday, 12:00 to 13:30 in 001 Hörsaal, L7, 3-5 Friday, 12:00 to 13:30 in 001 Hörsaal, L7, 3-5 Start: 08.09.2016, End: 09.12.2016

Exercise:

Group 1: Thursday, 17:15 to 18:45 in 002 Seminarraum, L9, 1-2 Group 2: Friday, 13:45 to 15:15 in P 044 Seminarraum, L7, 3-5 Start: 08.09.2016, End: 09.12.2016 Additional teachers: Teaching assistant

Additional information: Recommended textbooks: Wooldridge (2010): Econometric Analysis of Cross Section and Panel Data. MIT Press. Heij, De Boer, Franses, Kloek, and Van Dijk (2004): Econometric Methods with Applications in Business and Economics. Oxford University Press. Kirchgässner, Wolters (2007): Introduction to Modern Time Series Analysis. Kirchgässner, Wolters (2006): Einführung in die moderne Zeitreihenanalyse.

Elective Courses

E521 Methods in Empirical Industrial Organization (lecture + exercise) *Isis Durrmeyer, Ph.D.*

ECTS-Credits: 9 Teaching method: Lecture (2 SWS) and Exercise (2 SWS) Workload: 270 working hours, containing 42 hours class time Expected number of students in class: 20 Prerequisites: Advanced Microeconomics and Advanced Econometrics for Master Students

Goals and Contents of the module: This course introduces students to empirical methods in Industrial Organization. The course will put a substantial amount of effort in having the students work with econometric software in analyzing actual data sets, reproducing and criticizing results in previous work and learning the actual practice of econometrics as undertaken by the best applied economists.

Expected Competences acquired after completion of the module: Learn the standard models used in empirical industrial organization. Ability to use appropriate econometric tools to antitrust or industrial organization problems. Skills in data analysis and computer programming (MATLAB).

Requirements for the assignment of ECTS-Credits and Grades: personal project

Time & Venue: Lecture: Tuesday, 08:30 to 11:45 in Seminarraum 003, L9, 1-2 Start: 06.09.2016, End: 11.10.2016 + 29.11.2016

Exercise: Wednesday, 08:30 to 11:45 in PC-Pool 158, L7, 3-5 Start: 14.09.2016, End: 12.10.2016

Additional information: Quantitative Techniques for competition and antitrust analysis, Davis and Garcés

E526 Development Economics (lecture)

Prof. Katja Kaufmann, Ph.D.

ECTS-Credits: 5

Teaching method: Lecture (2 SWS)

Workload: 150 working hours, containing 21 hours class time and 129 hours independent study time and preparation for the exam

Expected number of students in class: 5-20

Prerequisites: E601-603 (or equivalent) for all Master's elective courses; Econometrics at the Master level

Goals and Contents of the module: The purpose of this course is to provide students with analytical and empirical tools that enable them to understand the functioning of markets and institutions in Less Developed Countries (LDCs). The methodological approach emphasizes the role of information and incentives in examining from a microeconomic point of view how LDCs cope with market imperfections. Particular emphasis is placed on program evaluation and on the empirical analysis of education, health and microcredit policies. For each topic, recent theoretical contributions are proposed and compared to existing empirical evidence, in order to train the student to develop a research process that goes from the formulation to the test of hypotheses.

Course content:

- 1. Introduction to the course
- 2. Program Evaluation: Theory
- 3. Program Evaluation: Applications
- 3.1 Education Programs and Policies in Developing Countries
- 3.2 Health Policies in Developing Countries
- 4. Economics of the Family
- 5. Risk and Insurance

Expected Competences acquired after completion of the module: Learn how to formulate hypotheses based on economic theory and how to empirically test these hypotheses using up-to-date microeconometric methods (such as program evaluation).

Requirements for the assignment of ECTS-Credits and Grades: Final exam and referee report

Time & Venue: Lecture: Wednesday, 13:45 to 15:15 in Seminarraum P 044, L7, 3-5 Start: 07.09.2016, End: 07.12.2016

Additional information: List of papers discussed in class

- Attanasio, O. and Kaufmann, K. (2014) "Education Choices and Returns to Schooling: Mothers' and Youths' Subjective Expectations and their Role by Gender", Journal of Development Economics. - Brollo, F., Kaufmann, K. and E. La Ferrara (2015) "Learning about the enforcement of conditional welfare programs: Evidence from Brazil", IGIER working paper.

- Duflo, E. (2002), "Empirical methods", mimeo, MIT.

(http://web.mit.edu/14.771/www/emp_handout.pdf)

- Duflo, E. (2001) "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment", American Economic Review, 91(4), 795-813.

- Duflo, E. (2003), "Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation", World Bank Economic Review, 17, 1-25.

- Galiani, S., Gertler, P., Schargrodski, E. (2005) "Water for Life: The Impact of the Privatization of Water Services on Child Mortality in Argentina", Journal of Political Economy, 113, 83-120.

- Kaufmann, K., Messner, M. and A. Solis (2015) "Elite higher education, the marriage market and the intergenerational transmission of human capital", SSRN working paper.

- Miguel, E. and Kremer, M. (2004) "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities, Econometrica, 72(1), 159-217.

- Schultz, P. (2004), "School subsidies for the poor: evaluating the Mexican Progresa poverty program", Journal of Development Economics, 74(1), 199-250.

E533 Auction Theory (lecture + exercise)

Dr. Vitali Gretschko

ECTS-Credits: 9

Teaching method: Lecture (2 SWS) and Exercise (2 SWS) **Workload:** 270 working hours, containing 42 hours class time and 228 independent study time

Expected number of students in class: 15

Prerequisites: E601-603 (or equivalent) for all Master's elective courses

Goals and Contents of the module:

Objectives

This course will provide an overview of modern auction theory and its methods. Selected topics from single and multi-unit auctions will be covered as well as a introduction into mechanism design.

Contents

The course will provide an introduction to the core concepts of auction theory. The focus of the course is not only on the results of the auction theoretic literature but also on the methods and proof techniques. At the end of the course the participants should be able to understand and solve basic auction theoretic models. Moreover, the learning experience will be enriched with case studies from the real life procurement and license auctions. The contents of the course are as follows.

Single Object Auctions:

Private Value Auctions The Revenue Equivalence Principle Risk-Averse Bidders Budget Constraints Asymmetry Auctions with Interdependent Values Mechanism Design (with Interdependent Values) Bidding Rings

Multiple Object Auctions:

Introduction to Multiple Object Auctions Equilibrium and Efficiency with Private Values Revenue Comparison Sequential Sales Spectrum auctions

Expected Competences acquired after completion of the module: Ability to solve optimalbidding problems in auctions, using advanced mathematical techniques. Understanding of the efficiency and revenue properties of single-unit auctions under standard assumptions about the informational environment. Based on this, ability to evaluate what possibly novel auction format is best suited for a given application. Ability to see the limits of current research on auctions, in particular with respect to modeling the informational environment. Appreciation of various roles of private information in decision making.

Requirements for the assignment of ECTS-Credits and Grades: written final exam

Time & Venue: Lecture: Tuesday, 15:30 to 17:00 in Seminarraum 002, L9, 1-2 Start: 06.09.2016, End: 06.12.2016

Exercise: Wednesday, 12:00 to 13:30 in Seminarraum 002, L9, 1-2 Start: 07.09.2016, End: 07.12.2016

Additional teachers: Philippe Gillen Nicolas Fugger Tobias Rhiem

Additional information: Main text: Auction Theory, Vijay Krishna

Additional literature:

Putting Auction Theory to Work, Paul Milgrom An Introduction to Auction Theory, Flavio M. Menezes and Paulo K. Montero The Economic Theory of Auctions, Paul Klemperer Auction Theory: A Guide to the Literature, Paul Klempeter Combinatorial Auctions, Peter Crampton, Yoav Shoham, and Richard Steinberg

E553 Development Economics: Experimental approaches (lecture)

Dr. Alexandra Avdeenko / Dr. Adrien Bouguen

Friday, 8:30 - 11:45 Sep 9 - Oct 21

The lecture will be split into 2 blocs, one about institutions the other about education taking place in the 16-Sep, 20-Sep, 23-Sep, 30-Sep, 07-Oct, 14-Oct, 21-Oct. An introductory lecture will take place on September 9th, 8:30 AM. A computer session of 1.5 hours will take place after each lecture.

ECTS-Credits: 5 Teaching method: Lecture (2 SWS) Workload: 150 working hours Expected number of students in class: 15 Prerequisites: E601-603 (or equivalent) for all Master's elective courses

Goals and Contents of the module: Development economics deals with economic aspects of the development process in low-income countries. After an examination of the long-run factors of economic development, this lecture focuses on interventions intended to promote economic growth and welfare of the population in developing countries. In particular, it accumulates evidence to answer the following questions: Which interventions improve the living conditions of the poor?

Methodologically, this lecture comprises of econometric methods used for program evaluation. These methods identify causal relationships between interventions and their intended outcomes (e.g. using instrumental variables, randomized control trials, regression discontinuity). The practical exercises include hands-on empirical work with STATA. Evaluation will be based on replications of famous empirical articles in developing countries. Students will implement three replications but only one will be graded (based on a random assignment at the end of the semester). Students will only have a few days to perform the replications, typically from the Friday after the end of the bloc to the Sunday evening. This year the course will mainly talked about institutions and education.

Expected Competences acquired after completion of the module: In terms of learning

outcomes for students the lecture pursues the following goals:

- Introduce students to state-of-the-art research on institutions and education.
- Give students insights on how to do empirical research employing econometric methods.
- Enable students to make critical assessments of research work.
- Enable students to independently great scientific articles using empirical tools learned in class.

Requirements for the assignment of ECTS-Credits and Grades: Essentially based on one of the three replications performed by the students. No final exam will be organized. Replication: 70 %

Class participation (Q&A, constructive criticism of other presentations): 30 %

Time & Venue: Lecture Friday, 08:30 to 11:45 in Poolraum 158, L7, 3-5 Start: 09.09.2016, End: 21.10.2016

Additional information: General readings: The following textbooks and book chapters will be covered in parts.

Angrist, J. and J.-S. Pischke (2009) Mostly Harmless Econometrics: An Empiricist's Companion, Princeton and Oxford: Princeton University Press.

Deaton, A. (1997) The Analysis of Household Surveys: A Microeconometric Approach to Development Policy, Baltimore: John Hopkins University Press.

Duflo, E., Glennerster, R. and M. Kremer (2008) "Using Randomization in Development Economics Research: A Toolkit," in P. Schultz and and J. Strauss (Eds.) Handbook of Development Economics, Vol. 4, Amsterdam: North-Holland

E566 Strategic Information Transmission for Masterstudents (block seminar)

Prof. Takakazu Honryo, Ph.D.

ECTS-Credits: 5

Teaching method: Block seminar (2 SWS)

Workload: 150 working hours

Expected number of students in class: 8

Prerequisites: E601, E602, E603 or equivalent; Knowledge of non-cooperative game theory under incomplete information.

Goals and Contents of the module: Students are required to pick one paper in selected topics and give a presentation to discuss the paper's strengths and weaknesses. Based on comments that they receive in the presentation, students are required to write a report summarizing the seminar paper. Topics include cheap talk games, persuasion games, and their application to economics, political economics, and finance. To make a presentation in class based on a paper of your choice on strategic information transmission, I recommend that you pick a paper from the list I will distribute. Students are required to pick one paper in selected topics and give a presentation to discuss the paper's strengths and weaknesses. Based on comments that they receive in the presentation, students are required to write a report summarizing the seminar paper.

Expected Competences acquired after completion of the module: Improvement of presentation skills. Ability to critically review academic papers, and make constructive comments, and clearly write those down. Basic idea of what is going on in the research field of "strategic information transmission."

Requirements for the assignment of ECTS-Credits and Grades: Presentation and term paper each counts for 50% of the final grade.

Time & Venue:

Organizational Meeting: Wednesday, September 07, 2016, 13:45 to 15:15 in Seminarraum 002, L9, 1-2 Block Seminar: Friday, November 11, 2016, 8:30-18:45h in Seminarraum 002, L9, 1-2

Additional information: A reading list of academic papers will be distributed in class.

E583 Empirical Public Finance and Economic Policy (lecture + exercise)

Prof. Dr. Andreas Peichl / Prof. Dr. Sebastian Siegloch

ECTS-Credits: 7 Teaching method: Lecture (2 SWS) and Exercise every other week (1 SWS) Workload: 210 working hours, containing 26.5 hours class time and 183.5 hours independent study time and preparation for the exam Expected number of students in class: 20 Prerequisites: E601-603 (or equivalent)

Goals and Contents of the module: The course covers empirical methods needed for research in Public Economics and Economic Policy. Based on fundamental theoretical models and their predictions on optimal policies, current empirical evidence on the effects of economic policies is discussed. In practical sessions, students will replicate influential empirical results and thereby get to know state-of-the-art methods of policy evaluation. Topics to be covered include efficiency costs and incidence of taxation, income and capital taxation, behavioral responses to taxes and transfers as well as central labor market policies.

Expected Competences acquired after completion of the module: Understanding of modern (econometric) methods used in Public Finance and Economic Policy and the ability to implement them. Understanding and knowledge of the research frontier in the field. Understanding of how economic theory and empirical research strategies can be combined to address questions of optimal policy design.

Requirements for the assignment of ECTS-Credits and Grades: Referee Report (33.3%), Empirical Take Home Exam (66.6%)

Time & Venue: Lecture: Thursday, 10:15 to 11:45 in Seminarraum P043, L7, 3-5 Start: 08.09.2016, End: 08.12.2016 **Exercise:** Tuesday, 13:45 to 15:15 in PC-Pool 158, L7, 3-5 Start: 13.09.2016, End: 06.12.2016

Additional information: Readings based on papers and lecture notes.

E599 Empirical Environmental Economics (block seminar)

Prof. Ulrich Wagner, Ph.D.

ECTS-Credits: 5

Teaching method: Block seminar (2 SWS) **Workload:** 150 working hours, containing 21 hours class time and 129 hours independent study time **Expected number of students in class:** 10

Prerequisites: E601-603 (or equivalent)

Goals and Contents of the module: This seminar covers recent empirical research in environmental economics. The reading list for the class will focus on a particular research topic in environmental economics, such as climate policy or air pollution control. Each student will present a paper chosen from the list to the class and write a report critiquing the paper. Emphasis will be on identifying the central questions addressed in the paper, evaluating the methodology and data, and making suggestions for improvements and extensions.

Expected Competences acquired after completion of the module: Ability to present academic research to semi-expert audience. Ability to critically reflect on academic research, and to articulate criticism and suggestions for improvement.

Requirements for the assignment of ECTS-Credits and Grades: Presentation (40%), report (40%), class room discussion (20%)

Time & Venue:

Organizational Meeting: Thursday, September 15, 12:00 to 13:30 in L9, 1-2, room 002 Block Seminar: Friday/Saturday, October 28/29 in L9, 1-2, room 002

E5002 History of Modern Economics (block seminar)

Dr. Andrej Svorenčík

ECTS-Credits: 5 Teaching method: Block seminar (2 SWS) Workload: 150 working hours Expected number of students in class: 10 Prerequisites: E601, E602, E603 or equivalent; MMM and Business Mathematics students: good foundations in economic theory.

Goals and Contents of the module: Economics underwent several major transformations in the 20th century. Mathematical formalization, economic modeling, econometrics and economic experiments transformed it to such a degree that two economists century apart would have trouble to understand each other and practice economics in the same fashion. The aim of this seminar is to understand these transformations through the study of selected Nobel Prizewinning contributions to economics. The Nobel Memorial Prize in Economic Sciences has come to be associated with the most influential and path-breaking research in economics. Since its inception in 1969, over seventy scholars have been awarded it. The seminar consists of four introductory lectures: 1) brief history of economics until the early 20th century; 2) how economics became a mathematical; 3) the econometric revolution; 4) the experimental turn in economics. Thereafter students choose one Nobel laureate for their research paper and presentation.

Expected Competences acquired after completion of the module: Ability to comprehend, present, critically evaluate and historically situate the work of leading economists of the second half of the 20th century. Knowledge of history of modern economics and better understanding of the practice of modern economics.

Requirements for the assignment of ECTS-Credits and Grades: Presentation, seminar paper and class participation (Q&A, constructive criticism of other presentations).

Time & Venue:

Organizational Meeting: Thursday, September 15, 2016, 15:30 to 17:00 in room B 144 in A 5, 6 Block Seminar: Friday, November 18, 2016, 13:00-17:00h, Saturday, November 19, 2016, 10:00-17:00h, Seminarraum P043, L7, 3-5

E5008 Economic and Financial Market Policy (lecture)

Prof. Dr. Hans Peter Grüner

ECTS-Credits: 5 Teaching method: Lecture (2 SWS) Workload: 150 working hours, containing 21 hours class time and 129 hours independent study time Expected number of students in class: 5-16 Prerequisited: E601 E602 (or equivalent)

Prerequisites: E601-E603 (or equivalent)

Goals and Contents of the module: This course offers an introduction to several important economic policy questions that are related to financial markets. I present basic analytical instruments and provide an overview of some fundamental results from general equilibrium theory. Based on this, we study why financial markets are needed in practice. We analyze in detail the role of financial intermediaries and study cases in which financial markets fail to work properly and we discuss appropriate policy responses. The last sessions are devoted to the analysis of fiscal and monetary policy measures that may affect financial markets and to the design of a new financial and economic order in Europe.

Course Structure

- 1. Analytical instruments/ basic results
- 2. The role of financial intermediaries
- 3. Financial market imperfections
- 4. Fiscal sustainability
- 5. Monetary policy institutions
- 6. Towards a consistent European economic policy framework

Requirements for the assignment of ECTS-Credits and Grades:

- First draft of slides for case presentation ten days before the presentation: 10%.
- Case presentation: 30%.
- Final exam (60 Minutes): 60%.

Time & Venue: Lecture: Thursday, 15:30 to 17:10 + additional appointment 20.10.2016 15:30 - 18:30 in Seminarraum 003, L9, 1-2 Start: 08.09.2016, End: 08.12.2016

E5023 Dynamic Stochastic Networks (seminar)

Dr. Carsten Jentsch

ECTS-Credits: 5 Teaching method: Seminar (2 SWS) Workload: 150 working hours, containing 21 hours class time and 129 hours independent study time and preparation Expected number of students in class: 14 Prerequisites: E601-603 (or equivalent)

Goals and Contents of the module: The students will work on a topic from stochastic network modelling, where the main emphasis is on dynamic network structures. Stochastic Networks arise e.g. in social sciences, telecommunication, economics or biology. In general, it is a modern field of statistical research and many high profile papers are devoted to stochastic networks in these days. Whereas most existing literature is on the static case, we will focus on dynamic (over time) network structures. The seminar topics will refer to different modelling approaches of dynamic networks and their properties that have to be carved out in the term papers. In general, the seminar is suitable as a basis for a master thesis in theoretical statistics for students from economics and from business mathematics. The maximum number of participants is limited to 14.

Expected Competences acquired after completion of the module: Basic knowledge of modelling approaches of dynamic network structures, their mathematical properties and relevant proof techniques in this field of research. Ability to understand the corresponding literature for a specific seminar topic and to identify independently relevant references. Ability to extract the relevant information from the literature, to summarize it in written form, to give an oral presentation about it and to defend it in a discussion.

Requirements for the assignment of ECTS-Credits and Grades: Handout, Presentation, Discussion

Time & Venue: Lecture & Exercise: Wednesday, 15:30 to 17:00 Seminarraum P004, L7, 3-5 Start: 07.09.2016, End: 07.12.2016

E5024 Poverty, Inequality and Income distribution

Dr. Luna Bellani

ECTS-Credits: 7 Teaching method: Lecture and Reading groups (2+1 semester hours per week) Workload: 210 working hours, containing 31.5 hours class time and 178.5 hours independent study time and preparation Expected number of students in class: 20 **Prerequisites:** for all Master's elective courses: E601-603 (or equivalent) ; for MMM students and Business Mathematics: Solid background in Microeconomics

Goals and Contents of the module:

The aim of the course is to provide the basis for an understanding of the measurement and interpretation of individual and social welfare. The first part of the course will focus on the distribution of income, and study phenomena such as poverty and inequality. The second part of the course will focus primarily on recent articles from academic journals in the field of social choice, poverty and inequality. Students are expected to actively participate in the discussion of assigned readings and will also be assigned to lead class discussions including short presentations of the assigned readings. This part is also designed to prepare students to understand and/or conduct original research.

Expected Competences acquired after completion of the module:

The course, although mainly focused on the development of theoretical tools, will provide also some empirical applications. At the end of the course students should be able to understand and recognize the ethical implications and the trade-offs between different values (e.g. efficiency and equality) implied by different policy choices.

The course will be particularly useful for students interested in becoming Economist/Policy Analyst in the field of Social Policies and Poverty reduction for national and international organizations, e.g. OECD and World Bank, and those with interest in pursuing further research in this field.

Requirements for the assignment of ECTS-Credits and Grades: Closed book, open

questions written exam and papers presentations

Time & Venue:

Lecture:

Tuesday, 12:00 to 13:30 in Seminarraum P044, L7, 3-5 Start: 06.09.2016, End: 06.12.2016 **Exercise:** Wednesday (fortnightly), 15:30 to 17:00 in Seminarraum 002, L9, 1-2 Start: 14.09.2016, End: 07.12.2016

Recommended Textbook:

Lambert, P. (2001). The distribution and redistribution of income. Manchester University Press.

Additional References:

Boadway, R. and Bruce, N. (1989). Welfare economics. Basil Blackwell. Hindriks, J. and Myles, G. (2006). Intermediate public economics. MIT Press.

Additional information:

Course Schedule

Social Welfare Orderings References: M ch23, 24 or Boadway and Bruce ch5 Distributive Justice Ref.: M ch25 or Boradway and Bruce ch6

Social welfare and Inequality Ref.: Lambert ch4 or Atkinson (1992) ch2

Inequality Ref.: Lambert ch3,5 + Sen (1979) ch2 + Hindriks and Myles ch14

Poverty Ref.: Lambert ch6 + Hindriks and Myles ch14

Multidimensionality Issues Sen (1979, 1985, 1997); Atkinson (2003); Bourguignon and Chakravarty (2003); Alkire and Foster (2011)

Inequality & growth Salverda ch22

Reading Sessions and Student Presentations

Academic papers t.b.a.

E5025 Intra-household decision making (block seminar)

Dr. Luna Bellani

ECTS-Credits: 5 Teaching method: Block seminar (2 SWS) Workload: 150 working hours, containing 21 hours class time and 129 independent study time Expected number of students in class: 12 Prerequisites: E601-603 (or equivalent); MMM students and Business Mathematics: a good

knowledge of microeconomic theory.

Goals and Contents of the module: Microeconomists are recently increasingly taking an interest in intra-household decision-making models, following the argument that individuals, and not households, have preferences. As a consequence, the standard assumption that a household, consisting of several individuals, behaves as if it were a single decision-maker seems too restrictive. This argument is supported by the growing empirical evidence that the standard unitary model indeed does not provide an adequate description of observed multiperson household behavior.

This seminar will cover topics on the decision making process within families. In the seminar students will present and discuss recent contributions in this area, covering both theoretical and empirical works. A list of specific topics will be provided during the first meeting.

Requirements for the assignment of ECTS-Credits and Grades:

Seminar paper 60% Seminar presentation 30% Presentation as discussant of another paper 10%

Responsible teacher of the module: Dr. Luna Bellani **Additional information:**

see website

Time & Venue:

Organizational Meeting: Monday, September 19, 2016, 13:45 to 15:15 in L7, 3-5 room P044 Block seminar: November 5, 2016, in seminar room 002 in L9, 1-2

E5026 Programming in Stata (lecture + exercise)

Dr. Ingo Steinke / Dr. Alexandra Avdeenko

ECTS-Credits: 7 Teaching method: Lecture (2 SWS) and Exercise (1 SWS) Workload: 210 working hours, containing 31.5 hours class time and 178.5 hours independent study time and preparation Expected number of students in class: 25 Prerequisites: E601-603 (or equivalent)

Goals and Contents of the module: Although Stata already offers a large number of econometric tools, novel approaches are often not available and have to be implemented by users. This course offers an introduction to advanced programming in Stata. Since comparatively few people know how to do so, Stata programming skills can be a competitive advantage. The lecture will start with an introduction to efficiently written do-files (including data processing). We will look at and discuss different data types. In hands-on sessions students will be taught how to prepare the data for analysis. Variables will be generated and their distributions explored; data will be merged; and regression results will be critically discussed. Moreover, in this course students will learn how to implement new commands for Stata and to conduct Monte Carlo simulations. These are important for verification of implementations and are used as a very important tool to analyse the small sample properties of estimators and to complement the theoretical properties of estimators making them an integral part of econometric analyses. We will also touch upon Stata's matrix programming language Mata, non-linear optimization, e.g. ML estimation and bootstrap methods.

Expected Competences acquired after completion of the module: Ability to program quantitative methods in Stata. Knowledge of Stata and Mata as programming languages and understanding of standard syntax and grammar, respectively. Better understanding of Stata's commands and ability to modify them. Ability to apply knowledge to different data sets. Ability to discover and use the potential of different data structures. Ability to work with crosssectional and longitudinal data. Ability to automatize complicated analyses and thus to work more efficiently.

Requirements for the assignment of ECTS-Credits and Grades: written exam

Time & Venue: Lecture: Monday, 15:30 to 17:00 in Poolraum 158, L7, 3-5 Start: 05.09.2016, End: 05.12.2016

Exercise: Monday (fortnightly), 17:15 to 18:30 in Poolraum 158, L7, 3-5 Start: 12.09.2016, End: 05.12.2016

Additional information: Cameron/ Trivedi (2009). Mircoeconometrics using Stata. Stata Press. E5027 Topics in Experimental and Behavioral Economics (block seminar)

Dr. Dietmar Fehr

ECTS-Credits: 5 Teaching method: Block seminar (2 SWS) Workload: 150 working hours Expected number of students in class: 10 Prerequisites: E601-603 (or equivalent), good knowledge on microeconomic theory, game theory, and empirical methods

Goals and Contents of the module: In this course we will discuss recent experimental research on the consequences and fairness perceptions of economic inequality. Students will present a paper from the reading list in class and write a seminar paper.

Expected Competences acquired after completion of the module: Students learn to read, understand and critically reflect articles at research frontier in the field. They will gain insights about specific research methods and how they can be applied to economic problems. They will acquire the ability to present and discuss this research in class. Thereby they are introduced to an academic discourse. They also learn how to write a concise research paper and process complex economic problems in their own words.

Requirements for the assignment of ECTS-Credits and Grades: Presentation (30%), seminar paper (50%), class room discussion (20%)

Time & Venue:

Organizational Meeting: Tuesday, September 20, 2016, 13:45 to 15:15 in Room t.b.a. Block seminar: November 4, 2016, in seminar room 002 in L9, 1-2

Additional information: A list of topics and papers will be distributed in the organizational meeting.

Some general background reading:

Stiglitz, The price of inequality, Norton & Company, and Chapter 1-3 in Atkinson, Inequality – What can be done?, Harvard University Press.