

CERGE-EI

**Charles University in Prague
Center for Economic Research and Graduate Education
and
the Economic Institute of the Academy of Sciences of the Czech Republic**

**Course Book for the Academic Year 2014-2015
Spring Semester**

PhD Study Affairs Office

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I. THE STRUCTURE OF PH.D. STUDIES IN ECONOMICS AT CERGE

The Center for Economic Research and Graduate Education (CERGE) is a research and educational institute of Charles University. In close cooperation with the Economics Institute (EI) of the Academy of Sciences of the Czech Republic, CERGE offers a Ph.D. program in Economics, accredited by the Ministry of Education, Youth and Sport of the Czech Republic. Economic research is an integral part of CERGE activities.

A. Contents and Organization of Graduate Study at CERGE

The basic mission of CERGE is to perform graduate studies in Economics and to train future university faculty and researchers and public administration representatives. The main idea of establishing the doctoral program curriculum is to transfer the modern Western system of Ph.D. study in Economics, as it is applied in the United States and some Western European countries, to the local environment and incorporate it into the structure of Czech university education within Charles University. The program offers economic education at a level comparable with world standards directly at Charles University, without the necessity of more expensive study abroad. Besides this fact, the best students may be offered the opportunity to visit (for up to one academic year) an appropriate university in the United States or Western Europe. This experience may enlarge their scope of knowledge significantly.

During the first two years of study courses are taught by the local and visiting faculty. Studies are conducted entirely in English. The duration of the doctoral study is four years. The first two years offer primarily systematic knowledge of theory; for the latter two years the students work on their dissertation. The transfer from study to independent research work is gradual and begins during the second year of study.

Further details on the program can be found in the handbook for graduate students.

B. Core Study – The First Two Years

In the first year of study the students follow a common curriculum designed to provide a strong foundation in Microeconomic Theory, Macroeconomic Theory, Statistics and Econometrics, and Academic Writing. This curriculum is standard for the PhD study in Economics. The study is divided into three semesters: the fall semester (FS), the spring semester (SS), and the summer semester (SuS). In view of the fact that many newly recruited students do not have an extensive background in modern Economics equivalent to "western" standards, and also that their knowledge of Mathematics and English are frequently at different levels, a preparatory semester is organized for potential students. It allows CERGE to provide the students with some basic tools as an introduction to the program and to achieve a standard level of competence.

The second year of formal study at CERGE provides students with the opportunity to investigate more specific fields of interest. Several courses (usually five or more) are offered each of the two semesters, and the second year students must enroll for a minimum of three, plus a course in English. The students participate in a seminar series and are now expected to begin their own research.

Having completed both the first and second years, students must pass a General (comprehensive) examination. After the first year, the students must pass Microeconomic Theory, Macroeconomic Theory, and Econometrics; after the second year they must show proficiency in at least two specialized fields by passing General (field) exams in their chosen areas of interest.

During the first two years of study the students do not have a special supervisor; rather, they rely on the advice of the Deputy Director of Graduate Studies, who is also one of the CERGE faculty members. The program and organization of graduate study is regulated by a CERGE's Graduate Council (GC).

C. Specialized Study – Third and Fourth Years

During the spring semester of the second year and the fall semester of the third year, the students have to choose the topic of their dissertations. A tentative chair as a supervisor is then assigned. By the middle of the third year (at the latest), they formulate a thesis proposal and public defense is required together with state doctoral examination. For students who passed all General examinations with distinction, the main importance will be placed on the defense of the thesis proposal. Those with less than distinctive examination results can also expect additional detailed questions from respective fields. After having successfully defended the proposal, a three-member dissertation committee is appointed which guides and supervises the study and research work.

At least one member of the dissertation committee has to be an employee of CERGE or EI. Under the guidance of this committee the student works on his or her dissertation. In the fourth year the students present their third year work at the Dissertation workshop and prepare for the defense of the dissertation. The study is concluded by the public defense of the doctoral dissertation.

D. Study Program

Here we present the courses designed for the preparatory semester, the first, second and third year of study. (One lecture/exercise unit is 45 minutes long.)

Preparatory semester

Subject	(Lecture hours / exercise hours)
Macroeconomics 0	4/2, Exam
Microeconomics 0	4/2, Exam
Mathematics	4/2, Exam

Notes: Upon completion of the preparatory semester, the final selection of students is made to enter the doctoral program in the fall, based on final exam results.

First year

Subject	Fall	Spring	Summer
Microeconomics I, II, III	4/2, Exam	4/2, Exam	4/2, Exam
Macroeconomics I, II, III	4/2, Exam	4/2, Exam	4/2, Exam
Statistics / Econometrics	4/2, Exam	4/2, Exam	4/2, Exam
Academic Writing I	---	4/0 Credit	---

Notes:

After completing the first year, each student must pass the General examination in the fields of Microeconomics, Macroeconomics and Econometrics.

Second Year

Subject	Fall	Spring	Summer
Econometrics III, IV	4/2, Exam	4/2, Exam	---
Industrial Organization	4/2, Exam	---	---
Advanced Game Theory	---	4/2, Exam	---
Financial Markets I, II	4/2, Exam	4/2, Exam	---
Empirical Methods	4/2, Exam	---	---
Labor Economics	---	4/2, Exam	---
Energy Economics	4/2, Exam	---	---
Social & Economic Networks	---	4/2, Exam	---
Macro Topics I, II	4/2, Exam	4/2, Exam	---
Academic Writing II	4/0, Credit	---	---
Research Methodology Seminar	Mandatory	Mandatory	Mandatory
Combined Skills I	---	4/0, Credit	---
Research Seminars	0/2, Credit	0/2, Credit	---
Directed Research	---	---	0/2, Credit
Combined Skills II – M.A.	---	---	0/2, Credit

Notes:

* Second-year students choose at least three (exam-ended) courses per semester. The courses cannot be from the same field. Courses offered may differ slightly from year to year, depending on the faculty in residence.

* The credits for English courses, the Research Seminars and Directed Research are mandatory.

* The credit for Research Methodology Seminar will be awarded based on individual consultations with the instructors and based on individual written work.

* After completing the second year each student must pass General exam in two fields. Upon agreement of CERGE, a student may complete part of his/her study at another university - this is valid not only for individual courses, but also for a whole study year.

* Topic courses are one semester courses not forming two semester sequence and do not cover comprehensively all material needed for Field General Exam.

* Combined Skills II – M.A. is for M.A. students only, a paper or report appropriate for the MA-degree writing requirement.

Third year

Subject	Fall	Spring	Summer
Combined Skills II – Ph.D.	Credit	---	---

Notes: Normally, students must pass the 2-year MA program first as a pre-requisite for registering in CSII-Ph.D.

II. SYLLABI OF THE SPRING SEMESTER COURSES

A. First year courses

MICROECONOMICS II

Lecturers:

Jan Zápala

(jzmicro@cerge-ei.cz, office 307, phone 107)

Teaching assistants:

Gega Todua

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Dali Tsintskiladze

(Dali.Tsintskiladze@cerge-ei.cz)

Office hours:

see the office door

Course information

This is the second course in the microeconomics sequence. The objective of the sequence in general and of the course in particular is to i) provide students with firm knowledge of the basic microeconomic theory, ii) provide students with grasp of relevant (micro)economic concepts on intuitive and formal level and iii) equip students with tools and techniques allowing them to conduct their own independent research.

The course is based on 24 90-minutes lectures and 12 90-minutes classes (exercise sessions). Two lectures and one class take place in any given week.

12 weekly problem sets are integral part of the course. Students are required to complete one problem set per week and hand it in before each class (details to be specified). The classes will be devoted to the discussion of problem set solutions. Team-work on the problem sets is encouraged. Free-riding on the effort of team-mates is not ... work on the problem sets is essential for grasping the course material and for exam preparation.

Course outline

1. General equilibrium under certainty
2. General equilibrium under uncertainty
3. Game theory

Requirements and grading

Grades will be based on final exam only. The final exam will take place in week 13 (details to be specified). There will be midterm exam in week 6 or 7 (details to be specified) with structure similar to

the final exam and hence indicative of students' standing in the course. In addition students are required to hand in 12 weekly problem sets.

Readings

Principal textbooks:

- ✓ Mas-Colell, Andreu; Michael D. Whinston and Jerry R. Green. Microeconomic Theory. Oxford: Oxford University Press, 1995. (henceforth MWG)
- ✓ Fudenberg, Drew and Jean Tirole. Game Theory. London: MIT Press, 1991. (henceforth FT)
- ✓ Osborne, Martin J. and Ariel Rubinstein. A Course in Game Theory. London: MIT Press, 1994. (henceforth OR)

Reference (not required) books:

Microeconomic:

- ✓ Jehle, Geoffrey A. and Philip J. Reny. Advanced Microeconomic Theory. Essex: Pearson Education Limited, 2011.
- ✓ Varian, Hal R. Microeconomic Analysis. London: W. W. Norton & Company, 1992.

Mathematical:

- ✓ Aliprantis, Charalambos D. and Kim C. Border. Infinite Dimensional Analysis: A Hitchhiker's Guide. Berlin: Springer, 2007.
- ✓ Border, Kim C. Fixed Point Theorems with Applications to Economics and Game Theory. Cambridge: Cambridge University Press, 1989.
- ✓ Dixit, Avinash K. Optimization in Economic Theory. Oxford: Oxford University Press, 2002.
- ✓ Duggan, John. Basic Concepts in Mathematical Analysis.
<https://dl.dropboxusercontent.com/u/17516137/RapidWeaverSite/resources/lecturenotes/MathHandbook13.pdf>, 2013.
- ✓ Chiang, Alpha C. Fundamental Methods of Mathematical Economics. London: McGraw-Hill, 1984.
- ✓ McLennan, Andrew. Advanced Fixed Point Theory for Economics.
http://cupid.economics.uq.edu.au/mclennan/Advanced/advanced_fp.pdf, 2014.
- ✓ Simon, Carl P. and Lawrence Blume. Mathematics for Economists. London: W. W. Norton & Company, 1994.
- ✓ Takayama, Akira. Mathematical Economics. Hinsdale, IL: Dryden Press, 1974. Huang, Chi-fu and Robert H. Litztenberger, Foundations for Financial Economics, North-Holland, 1988.

Game theory:

- ✓ Maschler, Michael; Eilon Solan and Shmuel Zamir. Game Theory. Cambridge: Cambridge University Press, 2013.
- ✓ Myerson, Roger B. Game Theory: Analysis of Conflict. London: Harvard University Press, 1991.

MACROECONOMICS II / Part I

Lecturer:

Byeongju Jeong

(Byeongju.Jeong@cerge-ei.cz, office 321, phone 233)

Teaching assistants:

Taras Hrendash

(Taras.Hrendash@cerge-ei.cz)

Office hours:

TBA

Course information

We will study some macro topics. Listed below are the main references in the order of discussion. You are strongly advised to read the papers in advance of lectures since the lectures will build on the basic understanding of the papers.

Requirements and grading

The grade is based on the midterm (two-third), and occasional home problems (one-third).

Readings

- ✓ Lagakos, D., Moll, B., Porzio, T., Qian, N., and Schoellman, T. (2014), "Experience Matters: Human Capital and Development Accounting," Manuscript.
(<https://sites.google.com/site/davidlagakos/home/research>)
- ✓ Comin, D. and Hobijn, B. (2010), "An Exploration of Technology Diffusion," *American Economic Review* 100: 2031-2019.
- ✓ Aghion, P., Akcigit, U., and Howitt, P. (2013), "What Do We Learn from Schumpeterian Growth Theory?," National Bureau of Economic Research Working Paper 18824.
- ✓ Acemoglu, D., Akcigit, U., and Celik, M. (2014), "Young, Restless, and Creative: Openness to Disruption and Creative Innovation," Manuscript.
(<http://economics.mit.edu/faculty/acemoglu/paper>)
- ✓ Gertler, M. and Karadi, P. (2011), "A Model of Unconventional Monetary Policy," *Journal of Monetary Economics* 58: 17-34.
- ✓ Gali, J. (2014), "Monetary Policy and Rational Asset Price Bubbles," *American Economic Review* 104: 721-752.

MACROECONOMICS II / Part II

Lecturer:

Marek Kapička

(Marek.Kapicka@cerge-ei.cz; office 328, phone 236)

Teaching assistant:

TBA

Office hours:

Monday and Wednesday at 10:00-11:00

Course information

In the first part of the course we will review the theory of dynamic programming in both deterministic and stochastic environments. We will then apply these tools to study selected economic applications, including labor markets and recursive competitive equilibrium. In the second part of the course we will cover models with heterogeneous agents and incomplete markets, specifically the problem of consumption insurance. Basic knowledge of MATLAB will be required to solve some of the problem sets.

Course outline

- Dynamic Programming (SLP chapter 2,4, LS chapter 2)
- General Equilibrium Theory (SLP chapter 15)
- Models with Heterogeneous Agents: Consumption Insurance (LS chapters 16,17, papers)
- Labor Search (LS chapters 6,28)

Requirements and grading

Grades will be based on student's performance in midterm exam, final exam, and problem sets.

Midterm exam	25%
Final exam	25%
Problem Sets	50%

Readings

- ✓ (SLP) Nancy L. Stokey, Robert E. Lucas, Jr., and Edward C. Prescott. Recursive Methods in Economic Dynamics. Cambridge: Harvard University Press, 1989.
- ✓ (LS) Lars Ljungqvist and Thomas J. Sargent. Recursive Macroeconomic Theory. The MIT Press, Cambridge, Massachusetts, 2 edition, 2004.
- ✓ Prescott, Edward C. and Rajnish Mehra, "Recursive Competitive Equilibrium: The Case of Homogeneous Households". *Econometrica*, Vol. 48, No. 6. (Sep., 1980), pp. 1365-1379.
- ✓ Mace, Barbara (1991). Full Insurance in the Presence of Aggregate Uncertainty." *Journal of Political Economy* Vol. 99(5), pp. 928-956.
- ✓ Cochrane, John (1991). A Simple Test of Consumption Insurance." *Journal of Political Economy* Vol. 99(5), pp. 957-976.
- ✓ Kimball, Miles S. (1990). Precautionary Saving in the Small and in the Large." *Econometrica*, Vol. 58, pp. 53-73.

- ✓ Huggett, Mark (1993). The Risk-Free Rate in Heterogeneous Agent Incomplete Insurance Economies." *Journal of Economic Dynamics and Control* Vol. 17(5-6), pp. 953-969.
- ✓ Aiyagari, Rao (1994). Uninsured Idiosyncratic Risk and Aggregate Saving." *Quarterly Journal of Economics* Vol. 109(3), pp. 659-684.
- ✓ Aiyagari, Rao and Ellen Mc Grattan (1998). The Optimum Quantity of Debt." *Journal of Monetary Economics* Vol. 42(3), pp. 447-469.
- ✓ Storesletten, Kjetil, Chris Telmer and Amir Yaron (2004). Consumption and Risk Sharing over the Life Cycle." *Journal of Monetary Economics* Vol. 51, pp. 609-633.
- ✓ İmrohorođlu, Ayse., Merlo, Antonio., & Rupert, Peter (2004). What accounts for the Decline in Crime?. *International Economic Review*, 45(3), 707-729.
- ✓ Burdett, Kenneth., and Mortensen, Dale. T. (1998). Wage differentials, employer size, and unemployment. *International Economic Review*, 257-273.
- ✓ Diamond, Peter (1971). A model of price adjustment. *Journal of economic theory*, 3(2), 156-168.
- ✓ Rogerson, Richard., Shimer, Robert., and Wright, Randall (2004). Search-theoretic models of the labor market-a survey (No. w10655). National Bureau of Economic Research.

ECONOMETRICS I

Lecturers:

Jan Hanousek

(Jan.Hanousek@cerge-ei.cz, office 312, phone 119)

Teaching assistants:

Olga Bychkova

(Olga.Bychkova@cerge-ei.cz)

Tomáš Protivínský

(Tomas.Protivinsky@cerge-ei.cz)

Office hours:

regular – Wednesday 14:00-15:00 and by appointment

Class website:

<http://cms.cerge-ei.cz/course/view.php?id=191>

Course information

This is a first course in econometrics. The objective is to give students an opportunity to understand econometric theory and to explore a variety of useful econometric applications, including data management. Obviously, it builds on the material covered in Statistics and extends it into regression-type models. Students will make regular use of the microcomputer. They will use STATA and TSP (or another econometric packet) for certain problem sets.

Some supplementary exercises – data management (using databases [MS Access], using spreadsheets [MS Excel], or and STATA), using econometric software (short introduction to STATA and TSP), will be prepared. If required by students, optional computer sessions will be provided.

As it is standard for introductory econometrics, the core of the course will deal with regression models and their variations. We will spend several lectures on testing linear and non-linear hypotheses,

identification issues and appropriate use of instrumental variable estimation. If time permits, we will also cover special topics like bootstrapping, and introduction into time series and linear regression model with panel data.

Requirements and grading:

Problem Sets 30%, Midterm 30%, Final 40%.

Course outline:

1. Background/Introduction
 - ✓ Review of estimation and testing theory
 - ✓ Introduction to linear regression model (via scale and location problem)
2. Single-equation linear regression model
 - ✓ Specification, assumptions, identification
 - ✓ OLS estimator (with small- and large-sample inference)
 - ✓ Estimation and testing
 - ✓ Violations of basic assumptions: Heteroskedasticity and autocorrelation
 - ✓ Specification testing, data problems, etc.
 - ✓ MLE estimation and related testing procedures (LM,LR,W), testing of nonlinear hypotheses
3. Single-equation linear regression model with an endogenous RHS variables: instrumental variable estimation
 - ✓ Identification
 - ✓ IV estimator, 2SLS, GMM
 - ✓ Estimation and testing in presence of heteroskedasticity and autocorrelation
 - ✓ Testing for endogeneity, over-identifying restrictions, etc.
4. Simultaneous Equation Models
 - ✓ Introduction: usual identification problems and their solutions
 - ✓ Identification by exclusion restrictions, cross-equation restrictions, etc.
 - ✓ Estimation of the reduced form equation
 - ✓ Single equation methods: ILS, 2SLS, MLE, selection of instruments, etc.
 - ✓ Full system methods: 3SLS, FIML
 - ✓ Efficiency and consistency; testing of endogeneity and specification
5. Panel Data – combining time series and cross-section
 - ✓ Pooled OLS
 - ✓ Fixed effects model, random effects model, Hausman test, etc.
 - ✓ Estimating and testing: Heteroskedasticity and serial correlation
6. Introduction to time series
 - ✓ Specific features of time series data
 - ✓ Autoregression, stationarity, invertibility, AR(p), MA(q), ARMA(p,q)
 - ✓ Integrated processes, test of unit roots, cointegrated analysis

Readings

As the main text we will use: William, H. Greene, *Econometric Analysis*, Second (and up) Edition, New York, Macmillan, 1993-2012 (G) Any good introductory econometric book (with matrix algebra), however, will do about the same job. Additional materials will be provided during the course and will be available on-line on course web-page (above)

Examples of additional references (check the library for more options):

- ✓ Wooldridge, Jeffrey M. Introductory Econometrics: A Modern Approach (Second Edition). Thomson/South-Western, 2003.
- ✓ Wooldridge, Jeffrey M. Econometric Analysis of Cross Section and Panel Data. The MIT Press, 2002.
- ✓ Peter Kennedy, A Guide to Econometric, Third Edition, Cambridge, MIT Press, 1992.
- ✓ Jan Kmenta, Elements of Econometrics, Second Edition, New York, Macmillan, 1986. (K)
- ✓ G.S. Maddala, Econometrics, McGraw-Hill, International Edition, New York, 1977. (M1)
- ✓ G.S. Maddala, Introduction to Econometrics, Macmillan, New York, 1988. (M2)

ACADEMIC WRITING I

Lecturers:

Andrea Downing

(Andrea.Downing@cerge-ei.cz, office 317, phone 254)

Deborah Nováková

(Deborah.Novakova@cerge-ei.cz; office 309, phone 197)

Office hours:

TBA

Course information

This course is the first step into PhD level writing in Economics. We will begin to focus on ways writing at this level differs from Master's and undergraduate writing. Students will practice their critical/analytical reading and writing skills in formal, post-graduate level English. There is a strong focus on accurate and effective citation and referencing, and the types of formal language used in professional texts in the field.

The final task will be a written analytical summary of an article in the field of Economics. Students will choose an article/topic that reflects their personal interests in the field.

The skills practiced on this course are designed to support student writing throughout their first two years of study and beyond, when they must write articles, working papers and dissertations.

Requirements and grading

Summary of an article	10%
Annotated bibliography	20%
Peer analysis	20%
Analytical summary	50%

As with all ASC courses, 100% attendance is mandatory. Any necessary absences must be discussed with your instructor, preferably in advance, and any work missed must be made up. Missing more than two classes will impact your grade for the course.

B. Second year courses

ECONOMETRICS IV

Lecturer:

Nikolas Mittag

(Nikolas.Mittag@cerge-ei.cz; office 304, phone 128)

Teaching assistants:

TBA

Office hours:

TBA

Course information

The emphasis of the course is threefold: (i) to extend regression models in the context of cross-section and panel data analysis, (ii) to focus on situations where linear regression models are not appropriate and to study alternative methods, (iii) to discuss the estimation of causal parameters and program evaluation. Besides covering these topics in some detail, a goal of the course is to provide students with an overview of some current topics in econometrics for further study. Examples of applied work will be used throughout the course.

Course outline

1. Introduction
 - a. Deviations from the Classical Linear Regression Model
 - b. Identification and Causal Parameters
 - c. Testing Issues
2. Panel Data Regression Analysis
 - a. GLS, Random and Fixed Effects
 - b. Extensions of Random and Fixed Effects Models
 - c. Measurement Error and Attrition in Panel Data
 - d. Testing in Panel Data Analysis: Clustered Errors
3. Overview of Estimation Frameworks In Econometrics
4. Qualitative and Limited Dependent Variables
 - a. Qualitative Response Models
 - b. Limited Dependent Variables
 - c. Duration Analysis
5. Program Evaluation
 - a. Observational Studies and Selection Bias
 - b. Modeling Selection and Matching
 - c. IV and (Quasi-) Experiments to solve the selection problem
 - d. Heterogeneous Treatment Effects

Requirements and grading

30 % problem sets and course project, 30 % midterm, 40 % final.

Readings

The main textbook for the class is **Econometric Analysis of Cross Section and Panel Data, J.M. Wooldridge, MIT Press, 2002**. The course heavily relies on journal articles to illustrate and extend the material in the text book. These additional readings will be posted online.

Some other books that cover similar material and can be used as a supplement or substitute for the Wooldridge book are:

- ✓ Cameron, A. Colin and Pravin K. Trivedi (2005). *Microeconometrics: Methods and Applications*. Cambridge University Press.
- ✓ Deaton, A. (1997) *The analysis of household surveys: A microeconomic approach to development policy*, Baltimore and London: Johns Hopkins University Press for the World Bank.
- ✓ Greene, William H. (2011) *Econometric Analysis*, 7th edition, Prentice Hall.
- ✓ Hsiao, C. (2003) *Analysis of Panel Data*, 2nd edition. Cambridge University Press.

ADVANCED GAME THEORY

Lecturer:

Avner Shaked

(shaked@uni-bonn.de; office 324, phone 162)

Krešimir Žigic

(Kresimir.Zigic@cerge-ei.cz; office 306, phone 245)

Teaching assistant:

Ludmila Matysková

(Ludmila.Matyskova@cerge-ei.cz)

Office hours:

TBA

Course information

This course is the continuation of the Industrial Organization (IO) sequence from the Fall 2014. The goal is to further familiarize students with the major topics in IO, notably core oligopoly theory and in parallel, to illustrate methodological tools for conducting research. The main focus will be on theoretical issues.

IO is (broadly) the economic study of firm behaviour and market structure. We will cover **in the sequence** several subjects including, but not limited to strategic oligopoly theory, dynamic games, bargaining, implications of asymmetric and/or incomplete information, mechanism design and auction theory. The course will follow various field articles.

Requirements and grading

The course will be accompanied by exercise sessions. 50% of the course grade will be based on a final exam, 40% on a midterm exam and 10% on the presentation of a selected article (either one of the papers on the regular syllabus that we haven't covered in class, or of your choice – permission required). The presentation shall involve a **critical** analysis of the model, its assumptions, the findings and the possible extensions. This requires an extensive knowledge of the related literature.

Readings list

Principal textbooks

- ✓ Tirole, Jean: *The Theory of Industrial Organization*, MIT Press, 1989 (henceforth, Tirole, 1989).
- ✓ Belleflamme, P., and M. Peitz: *Industrial Organization—Markets and Strategies*, Cambridge University Press, 2010 (henceforth, Belleflamme and Peitz, 2010).
- ✓ Osborne, J. M. and A. Rubinstein: *Bargaining and Markets*, Academic Press, 1990.
- ✓ Etro, Federico: *Competition, Innovation and Antitrust, A Theory of Market Leaders and Its Policy Implications*, Springer Verlag, 2007. (henceforth, Etro, 2007).

Recommended and supplementary textbooks

- ✓ Binmore, Ken: *Fun & Games*, D.C. Heath, 1992.
- ✓ Fudenberg, Drew and Jean Tirole: *Game Theory*, MIT Press, 1991.
- ✓ *Handbook of Industrial Organization Vol. I and II*, eds. R. Schmalensee and R. Willig, Amsterdam: North-Holland, 1989.
- ✓ *Handbook of Industrial Organization Vol. III*, eds. M. Armstrong and R. Porter, Amsterdam: North-Holland, 2007.
- ✓ Gibbons, Robert: *Game Theory for Applied Economists* Paperback, Princeton, 1992.
- ✓ Martin, Stephen: *Advanced Industrial Economics*, Blackwell, 1993.
- ✓ Mas-Colell, A., M. Whinston and J. Green (1995), *Microeconomic Theory*, Oxford University Press (henceforth, MWG, 1995).
- ✓ Shy, Oz: *Industrial Organization, Theory and Applications*, The MIT Press, 1996.
- ✓ Spiegler, R., *Bounded Rationality and Industrial Organization*, Oxford University Press, 2011.
- ✓ Sutton, John: *Sunk Costs and Market Structure: Price Competition, Advertising, and the Evolution of Concentration*, MIT Press, 1991.
- ✓ Vives, Xavier, *Oligopoly Pricing; old ideas and new tools*, The MIT Press, 2000, (henceforth, Vives, 2000).
- ✓ Vives, Xavier, *Information and Learning in Markets: The Impact of Market Microstructure*, Princeton University Press, 2010.
- ✓ Wolfstetter, G. Elmar *Topics in Microeconomics*, Cambridge, 2002

Recommended web site

INTERTIC; www.intertic.org

Topics & Readings (this is a **tentative** outline of what we plan to cover in the Spring semester)

1. Models of Oligopolistic Competition (cont.)

- ✓ Etro, 2007; Chapters, 1-3
- ✓ Tirole, 1989; Sections 5.1, 5.2, 5.4, 8.2.1.
- ✓ MWG, 1995; Section 12.C.
- ✓ Belleflamme and Peitz, 2010, Chapters, 3-4
- ✓ Etro, F. (2006), "Aggressive Leaders," *Rand Journal of Economics*, 37, 146-154.
- ✓ Novshek, W. (1985), "On the Existence of Cournot Equilibrium," *Review of Economic Studies*, 52, 85-98.

- ✓ Etro, F. 2008, Stackelberg Competition with Endogenous Entry, *The Economic Journal*, Vol. 118, 531 (October), pp. 1670-97.
- ✓ Shapiro, C. (1989), "Chapter 6: Theories of Oligopoly Theory," in: *Handbook of Industrial Organization Vol. I*.
- ✓ Vives, 2000 Chapters 3, 4 and 5

2. Oligopoly Applications

2.1 Cournot Equilibrium, Evolutionary Processes

- ✓ Wolfstetter, E. (2002), chapter 3

2.2 Entry Deterrence/Accommodation

- ✓ Etro, 2007; Chapter 4
- ✓ Tirole, 1989; Sections, 8.2.1, 8.2.2.1, 8.3, 8.4.
- ✓ MWG, 1995. Section 12-App.B.
- ✓ Belleflamme and Peitz, 2010, Chapter, 16
- ✓ Bulow, J., J. Geanakoplos and P. Klemperer (1985a), "Multimarket Oligopoly: Strategic Substitutes and Complements," *Journal of Political Economy*, 93, 488-511.
- ✓ Bulow, J., J. Geanakoplos and P. Klemperer (1985b), "Holding Idle Capacity to Deter Entry," *Economic Journal*, 95, 178-182.
- ✓ Caves, R. and M. Porter (1977), "From Entry Barriers to Mobility Barriers," *Quarterly Journal of Economics*, 9, 241-267.
- ✓ Dixit, A. (1979), "A Model of Duopoly Suggesting a Theory of Entry Barriers," *Bell Journal of Economics*, 10, 20-32.
- ✓ Dixit, A. (1980), "The Role of Investment in Entry Deterrence," *Economic Journal*, 90, 95-106.
- ✓ Ellison, G., and S.F. Ellison, (2011), "Strategic Entry Deterrence and the Behavior of Pharmaceutical Incumbents Prior to Patent Expiration", *American Economic Journal: Microeconomics*, 3, 1-36.
- ✓ Fudenberg, D. and J. Tirole (1984), "The Fat Cat Effect, the Puppy Dog Ploy and the Lean and Hungry Look," *American Economic Review*, 74, 361-368.
- ✓ Fudenberg, D. and J. Tirole (1986), *Dynamic Models of Oligopoly*, London: Harwood.
- ✓ Gilbert, R. J. (1989), "Mobility Barriers and the Value of Incumbency," in: *Handbook of Industrial Organization Vol. I*, 476–531.
- ✓ Spence, M. (1977), "Entry, Capacity, Investment and Oligopolistic Pricing," *Bell Journal of Economics*, 8, 534-544.

2.3 Innovation and R&D

- ✓ Etro, 2007, Chapter 4
- ✓ Etro, F. 2004, Innovation by Leaders, *The Economic Journal*, Vol. 114, 495, 281- 310.
- ✓ Belleflamme and Peitz, 2010, Chapter, 18
- ✓ Vives, X. 2008. "Innovation and Competitive Pressure." *The Journal of Industrial Economics*, 56: 419-469.
- ✓ Kamien, I. M., E. Muller and I. Zang (1992), "Research Joint Venture and R&D Cartels," *American Economic Review*, 82, 1293-1306.
- ✓ Lee, T. and L. Wilde (1980), "Market Structure and Innovation: A Reformulation," *Quarterly Journal of Economics*, 94, 429-436.
- ✓ Loury, G. C. (1979), "Market Structure and Innovation," *Quarterly Journal of Economics*, 93, 395- 410.

(3) Chain Store Paradox

- ✓ Selten, Reinhard "The chain store paradox". *Theory and Decision* 9 (2): 127–159, 1978

(4) Search Models

- ✓ Pissarides, Lecture Notes on Search, 2008, <https://www.esrc.ac.uk/my-esrc/grants/RES-035-25-0014/outputs/Download/0d68ed47-9dfc-4900-87c4-aa714ce3a0b1>

(5) Bargaining and markets

- ✓ M. Osborne & A. Rubinstein, Bargaining and Markets Academic Press, 1990

(6) Incomplete Monitoring

- ✓ Green & Porter, Noncooperative Collusion under Imperfect Price Information, Econometrica, Vol 52, January, 1984

(7) Information in Markets

7.1 Auctions

7.2 Signalling

7.3 Information Cascades

- ✓ Vives, 2010
- ✓ Gibbons, 1992
- ✓ Wolfstetter, 2002

LABOR ECONOMICS

Lecturer:

Daniel Múnich

(Daniel.Munich@cerge-ei.cz; office 303, phone 175)

Office hours:

Tue & Thu 14:00-16:00 (and anytime if doors are open)

Mariola Pytlíková

(jola.pytlikova@gmail.com)

Office hours:

by appointment

Teaching assistant:

Jekaterina Kuliomina

(Jekaterina.Kuliomina@cerge-ei.cz)

Class website:

<http://home.cerge-ei.cz/munich/labor14/>

Course information

The course will provide fundamental understanding of stylized labor supply and labor supply models in static and dynamic version, models of wage determination and of firm behavior. The course will combine theoretical concepts, empirical evidence and methodologies of empirical approaches including use of econometrics tools. Debates about links to public policy designs and policy experience will be encouraged.

The course has three major goals (i) to guide students through current theoretical and empirical understanding of major labor market issues, (ii) to provide guidance to student's own empirical research, (iii) to make students familiar with common research resources, standards and approaches in the field. Throughout the topics, references will be made to empirical approaches (data and techniques econometric / identification approaches).

The necessary prerequisite for the course is familiarity with principles of microeconomic theory and econometrics from the 1st year.

Course outline

LABOR SUPPLY

- Key terms, framework, resources (DM)
- Static model of labor supply, non-linear price lines, participation, overtime work rationing, taxes and transfer schemes (DM)
- Home production, interpersonal transfers and earnings within families, allocation of (non)market time (DM)
- Labor supply over business and life-cycle (DM)

MODELS OF WAGE STRUCTURES

- Human capital model (DM)
- Differentials on labor markets by gender and ethnicity, compensating wage differentials, discrimination (MP)

- Changes in wage structures, income inequality (MP)
- Job turnover, matching and search, unemployment duration (DM)

LABOR DEMAND

- Static and dynamic labor demand (DM)
- Theory of firm (standard, state owned, coops, labor managed) (DM)
- Minimum wages; unions; bargaining, wages and employment (MP)
- Pay and productivity, efficiency wages, ownership (MP)
- Effects of international trade and foreign direct investment (MP)

LABOR MARKETS ISSUES

- International migration (MP)
- Impacts of workforce diversity on firms (MP)

Requirements and grading

Grades will be based on student's performance in the final exam (55%), a term paper (25%) and empirical assignment (20%).

The aim of empirical assignment is to make students familiar with empirical econometric analysis (using statistical package Stata) using real empirical data and estimating selected models.

The term-paper should be a ~15 000 characters (~5 pages max) long, coherent and carefully crafted critical literature review (own critical insight!) on a topic of student's choice. Details about assignments, exercise sessions, handouts etc. will be posted in advance.

Exercise sessions will be scheduled irregularly and will focus mainly on empirical research practices.

Course materials (ex-ante and ex-post) will be made available via course web page at <http://home.cerge-ei.cz/munich/labor14/>

Readings

Selected chapters from

- ✓ HBLE (Handbook of Labor Economics, Vol. 1, 2, 3, 4A, 4B, Edited by O. Ashenfelter, R. Layard and D. Card, Elsevier) at <http://econpapers.repec.org/bookchap/eeelabhes/>
- ✓ George J. Borjas: "The Economic Analysis of Immigration", In: Handbook of Labor Economics, Volume 3, Edited by O. Ashenfelter and D. Card (1999); Chapter 28, Elsevier Science B. V.
- ✓ Hamermesh, Daniel S. and Albert Rees (1984) "The Economics of Work and Pay"
- ✓ Hamermesh, Daniel S. (1993), "Labor Demand" (Princeton University Press)

Auxiliary reference texts

- ✓ Econometric Analysis of Cross Section and Panel Data, [W], Jeffrey M. Wooldridge, MIT Press, 2002.
- ✓ Econometrics Analysis, [G], William H. Greene.
- ✓ Analysis of Panel Data, [H], Cheng Hsiao, Cambridge U. Press, 1986.
- ✓ Limited-dependent and Qualitative Variables in Econometrics, [M], G.S. Maddala, Cambridge U. Press, 1983.
- ✓ A Guide to Econometrics, Peter Kennedy.
- ✓ Labor Economics, George Borjas.
- ✓ Filer et al., The Economics of Work and Pay.

Additional readings (papers) will be provided for various subtopics before and after particular lectures.

FINANCIAL MARKETS II

Lecturer:

Michal Pakoš

(Michal.Pakos@cerge-ei.cz; office 327, phone 121)

Teaching assistants:

TBA

Office hours:

TBA

Course outline

This course studies asset pricing theory, emphasizing a discount-factor and GMM approach. The discount factor is a unifying framework: $p=E(mx)$ covers everything, stocks, bonds, options, real investments, discrete time, continuous time, asset pricing, portfolio theory, etc.

Reading list

There is one required text: Asset Pricing, Princeton University Press.

1. You need to be comfortable with time series mechanics. Start with the Appendix on Continuous time in Asset Pricing, p.489-496. Read the Continuous-time review notes from John Cochrane for a quick refresher on dz and dt.

2. Asset Pricing Ch1-2 and Ch 21.1 for equity premium

Lucas, Robert E. Jr, 1978, "Asset Prices in An Exchange Economy" *Econometrica* 46, 1429-1455.

3. Contingent claims, state-space representation and existence of a discount factor, Asset Pricing Ch. 3-4

(Optional, reference) Hansen, Lars Peter and Scott F. Richard, 1987, "The Role of Conditioning Information in Deducing Testable Restrictions Implied by Dynamic Asset Pricing Models" *Econometrica* 55, 587-613.

4. Mean-variance frontier, beta representations, conditioning information, Asset Pricing Ch 5-8.

5. Factor pricing models.; CAPM, ICAPM, APT, Asset Pricing Ch.8-9.

6. Generalized Method of Moments, Asset Pricing Ch 10-11.

Hansen, Lars Peter, 1982, "Large Sample Properties of Generalized Method of Moments Estimators" *Econometrica* 50, 1029-1054.

Hansen, Lars Peter, and Kenneth J. Singleton, 1982, "Generalized Instrumental Variables Estimation of Nonlinear Rational Expectations Models" *Econometrica* 50,

1269-1286.;

7. Regression tests, GRS, and GMM, Asset Pricing Ch 12-16

8. a) Option pricing and b) Term structure definitions, expectations hypothesis and factor structure, Asset Pricing Ch 17

9. Asset pricing and macro. Alternative utility functions: multiple goods, aggregation, habits, durable goods, labor, recursive utility, long run risks, endowment and general equilibrium models, Asset Pricing Ch 21.2

SOCIAL & ECONOMIC NETWORKS

Lecturer:

Jaromír Kovářik

(jaromir.kovarik@ehu.es, office 316, phone 182)

Teaching assistant:

TBA

Office hours:

TBA

Course information

The course will first provide an overview of the relevance of networks in socio-economic settings. Second, it will introduce how to describe and measure network architectures. A more theoretical part will be dedicated to network formation. Then, both from theoretical and empirical perspective, the network topics will be applied to analyze the impact of networks on economic activity, human behavior, diffusion on networks etc. The last part of the material will be dedicated to game theory: network games, learning on networks, and networked markets. Students will be introduced into the both theoretical and empirical treatment of network data and models using the *igraph* package of the statistical software R. The course will be concluded with a discussion of open topics in the literature and the areas for further research.

Course outline

- Introduction to the economics of networks
- Describing and measuring networks
- Network formation
- Diffusion on networks
- Network game theory (behavior and learning)
- Future research

Requirements and grading

Grades will be based on student's performance in two problem sets handed to the students during the course and a term paper. There will be neither midterm nor final exams. The grading scheme is as follows:

Problem Set 1	10%
Problem Set 2	10%
Term paper	80%

Readings

Main Text Book

- ✓ Jackson, Matthew O. *Social and economic networks*. Princeton University Press, 2010.

Complementary Text Books

- ✓ Goyal, Sanjeev. *Connections: an introduction to the economics of networks*. Princeton University Press, 2012.
- ✓ Vega-Redondo, Fernando. *Complex social networks*. No. 44. Cambridge University Press, 2007.

The book of Sanjeev Goyal focuses more (than Matthew Jackson) on game theory and learning in networks, while Fernando Vega-Redondo provides more emphases on complex networks, a topic heavily exploited recently in the analysis of bank and financial networks.

Manuals on R and the network-analysis package igraph in R

- ✓ An Introduction to R. Notes on R: A Programming Environment for Data Analysis and Graphics, Version 3.1.2 (2014-10-31), available at <http://cran.r-project.org/doc/manuals/R-intro.pdf>.
- ✓ Package igraph, available at <http://cran.r-project.org/web/packages/igraph/igraph.pdf>.

Additional research articles might be recommended and/or distributed during the class.

MACRO TOPICS II / Part I

Lecturer:

Marek Kapička

(Marek.Kapicka@cerge-ei.cz; office 328, phone 236)

Teaching assistant:

Office hours:

Monday and Wednesday at 10:00-11:00

Course information

This course will study issues in dynamic social insurance. We will study economies where the underlying information structure is explicitly specified, and all tax instruments arise endogenously. We will discuss optimal capital and income taxation, optimal estate taxes and other applications.

We will also discuss other topics, such as long run properties of the efficient allocations, efficient allocations with persistent private information and the implications of hidden savings and endogenous insurance markets.

Course outline

- Ramsey Taxation
- Production Efficiency
- Static Mirrlees Taxation
- Dynamic Mirrlees Taxation
- Long Run Properties of the Optima
- Persistent Private Information
- Hidden Savings

Requirements and grading

Grades will be based on student's performance in final exam, problem sets, and an oral presentation.

Problem sets	20%
Final exam	30%
Oral presentation	50%

The oral presentation will be devoted to a specific paper. Any paper marked by (R) below can be chosen for presentation.

Readings

1. Ramsey Taxation
 - ✓ Christophe Chamley. Optimal taxation of capital income in general equilibrium with infinite lives. *Econometrica*, 54(3):607-622, 1986
 - ✓ Kenneth L. Judd. Redistributive taxation in a simple perfect foresight model. *Journal of Public Economics*, 28(1):59-83, 1985.
 - ✓ Chari, V. V., & Kehoe, P. J. (1999). Optimal fiscal and monetary policy. *Handbook of Macroeconomics*, 1, 1671-1745.
 - ✓ Werning, Ivan and Straub, Ludwig (2014). "Positive Long Run Capital Taxation: Chamley-Judd Revisited", working paper, MIT.

- ✓ (R) Andres Erosa and Martin Gervais. Optimal taxation in life-cycle economies. *Journal of Economic Theory*, 105(2):338-369, 2002
2. Production Efficiency
- ✓ Peter A. Diamond and James A. Mirrlees. Optimal taxation and public production I: Production efficiency. *American Economic Review*, 61(1): pp. 8-27, 1971
3. Static Mirrlees Taxation
- ✓ James A. Mirrlees. An exploration in the theory of optimum income taxation. *The Review of Economic Studies*, 38:175-208, 1971
 - ✓ Peter A. Diamond. Optimal income taxation: an example with a U-shaped pattern of optimal marginal tax rates. *American Economic Review*, 88:83-95, 1998
 - ✓ (R) Emmanuel Saez. Using elasticities to derive optimal income tax rates. *The Review of Economic Studies*, 68:205-229, 2001
 - ✓ Gregory N. Mankiw and Matthew Weinzierl. The optimal taxation of height: A case study of utilitarian income redistribution. *American Economic Journal: Economic Policy*, 2(1):155-76, February 2010
 - ✓ (R) Florian Scheuer and Casey Rothschild. Redistributive taxation in the Roy model. Working paper, Stanford University, 2012
 - ✓ Florian Scheuer and Casey Rothschild. Optimal taxation with rent-seeking. Working paper, Stanford University, 2012
 - ✓ (R) Peter Diamond. Income taxation with fixed hours of work. *Journal of Public Economics*, 13(1):101-110, 1980
 - ✓ (R) Emmanuel Saez, Stefanie Stancheva, and Thomas Piketty. Optimal taxation of top labor incomes: A tale of three elasticities. *American Economic Journal: Economic Policy*, 2013
4. Dynamic Mirrlees Taxation
- ✓ Stiglitz, Joseph (1988). Pareto efficient and optimal taxation and the new new welfare economics. in: A. J. Auerbach & M. Feldstein (ed.), *Handbook of Public Economics*, edition 1, volume 2, chapter 15, pages 991-1042.
 - ✓ Narayana R. Kocherlakota. *The New Dynamic Public Finance*. Princeton University Press, 2010.
 - ✓ Mikhail Golosov, Aleh Tsyvinski, and Iv_an Werning. New dynamic public finance: a user's guide. *NBER Macroeconomic Annual*, 2006.
 - ✓ Mikhail Golosov, Narayana R. Kocherlakota, and Aleh Tsyvinski. Optimal indirect and capital taxation. *The Review of Economic Studies*, 70:569-587, 2003.
 - ✓ Narayana R. Kocherlakota. Zero expected wealth taxes: A Mirrless approach to dynamic optimal taxation. *Econometrica*, 73:1587-1621, 2005.
 - ✓ (R) Emmanuel Farhi and Ivan Werning. Capital taxation: Quantitative explorations of the inverse Euler equation. Working paper, MIT, 2007.
 - ✓ Stefania Albanesi and Christopher Sleet. Dynamic optimal taxation with private information. *The Review of Economic Studies*, 73(1):1-30, 2006.
 - ✓ (R) Mikhail Golosov and Aleh Tsyvinski. Designing optimal disability insurance: A case for asset testing. *Journal of Political Economy*, 114:257-279, 2006.
 - ✓ (R) Borys Grochulski and Narayana R. Kocherlakota. Nonseparable preferences and optimal social security systems. Working paper, Federal Reserve Bank of Minneapolis, 2008.
 - ✓ Marek Kapicka. Optimal Mirrleesian Taxation with Unobservable Human Capital Formation. *American Economic Journal: Macroeconomics*, 2014, forthcoming.
 - ✓ (R) Borys Grochulski and Thomas Piskorski. Risky human capital and deferred capital income taxation. *Journal of Economic Theory*, 145(3):908-943, 2010.
 - ✓ (R) Matthew C. Weinzierl. The surprising power of age-dependent taxes. *The Review of Economic Studies*, 78:1-29, 2011.
 - ✓ Marco Battaglini and Stephen Coate. Pareto efficient income taxation with stochastic abilities. *Journal of Public Economics*, 92(3-4):844-868, 2008.

- ✓ (R) Emmanuel Farhi and Ivan Werning. Insurance and taxation over the life-cycle. *Review of Economic Studies*, 80:596-635, 2012.
- ✓ (R) Mikhail Golosov, Aleh Tsyvinski, and Maxim Troshkin. Optimal dynamic taxes. Working paper, Yale University, 2011.

5. Long Run Properties of the Optima

- ✓ J. Thomas and T. Worrall. Income fluctuations and asymmetric information: An example of the repeated principal agent problem. *Journal of Economic Theory*, 51:367-390, 1990.
- ✓ Edward J. Green. Lending and the smoothing of uninsurable income. In E. Prescott and N. Wallace, editors, *Contractual Arrangements for Intertemporal Trade*. Minneapolis: University of Minnesota Press, 1987.
- ✓ Andrew Atkeson and Robert E. Lucas, Jr. On efficient distribution with private information. *The Review of Economic Studies*, 59:427-453, 1992.
- ✓ (R) Andrew Atkeson and Robert E. Lucas, Jr. Efficiency and equality in a simple model of efficient unemployment insurance. *Journal of Economic Theory*, 66:64-98, 1995.
- ✓ (R) Emmanuel Farhi and Ivan Werning. Inequality and social discounting. *Journal of Political Economy*, 115(1):365-402, 2005.

6. Persistent Private Information

- ✓ Ana Fernandes and Christopher Phelan. A recursive formulation for repeated agency with history dependence. *Journal of Economic Theory*, 91(2):223-247, 2000.
- ✓ (R) Yuzhe Zhang. Dynamic contracting, persistent shocks and optimal taxation. *Journal of Economic Theory*, 144:635-675, 2009.
- ✓ Marek Kapicka. Efficient allocations in dynamic private information economies with persistent shocks: A first-order approach. *Review of Economic Studies*, 2013.
- ✓ (R) Kenichi Fukushima and Yuichiro Waki. Computing dynamic optimal mechanisms when hidden types are Markov. Working paper, University of Minnesota, 2011.

7. Hidden Savings

- ✓ Harold L. Cole and Narayana R. Kocherlakota. Efficient allocations with hidden income and hidden storage. *The Review of Economic Studies*, 68:523-542, 2001.
- ✓ (R) Alberto Bisin and Adriano Rampini. Markets as beneficial constraints on the government. *Journal of Public Economics*, 90:601-629, 2006.
- ✓ Narayana R. Kocherlakota. Figuring out the impact of hidden savings on optimal unemployment insurance. *Review of Economic Dynamics*, 7(3):541-554, July 2004.
- ✓ Ivan Werning. Moral hazard with unobserved endowments: A recursive approach. Working paper, University of Chicago, 2001.
- ✓ (R) Arpad Abraham, Sebastian Koehne, and Nicola Pavoni. On the first order approach in principal-agent models with hidden borrowing and lending. *Journal of Economic Theory*.

MACRO TOPICS II / Part II

Lecturer:

Byeongju Jeong

(Byeongju.Jeong@cerge-ei.cz; office 321, phone 233)

Teaching assistant:

Office hours:

TBA

Course information

We will study some macro topics. Listed below are the main references in the order of discussion. You are strongly advised to read the papers in advance of lectures since the lectures will build on the basic understanding of the papers.

Requirements and grading

The grade is based on the final exam (two thirds) and occasional home problems (one third).

Readings

- ✓ Vogl, T. (2014), "Differential Fertility, Human Capital, and Development," Manuscript. (<http://www.princeton.edu/~tvogl/research.html>).
- ✓ Besley, T. and Persson, P. (2009), "The Origins of State Capacity: Property Rights, Taxation, and Politics," *American Economic Review* 99: 1218-1244.
- ✓ Besley, T. and Persson, P. (2011), "The Logic of Political Violence," *Quarterly Journal of Economics* 126: 1411-1445.
- ✓ Piketty, T. and Zucman, G. (2014), "Capital is Back: Wealth-Income Ratios in Rich Countries 1700-2010," *Quarterly Journal of Economics* 129: 1255-1310.
- ✓ Korinek, A. and Kreamer, J. (2014), "The Redistributive Effects of Financial Deregulation," *Journal of Monetary Economics* forthcoming.
- ✓ Helpman, E., Itskhoki, O., and Redding, S. (2014), "Trade and Inequality: From Theory to Estimation," Manuscript. (<http://scholar.harvard.edu/helpman/publications>)

COMBINED SKILLS I

Lecturers:

Andrea Downing

(Andrea.Downing@cerge-ei.cz; office 124, phone 113)

Paul Whitaker

(Paul.Whitaker@cerge-ei.cz; office 319, phone 259)

Office hours:

TBA

Course information

Combined Skills 1 begins with production of a professional CV and biography for LinkedIn. The majority of the course combines development of oral presentation skills with production of a written persuasive text which is research-related, with preparation for next fall's DPW in mind (though of course your project may change before then). The projects are normally an initial research proposal or an extension of the position paper from AW2, though other options are possible. Each project will be agreed between the student and the instructor early in the course.

Requirements & Grading

CV and Bio 10%

Presentation Skills 45%

Written Paper 45%

As with all ASC courses, 100% attendance is mandatory. Any necessary absences must be discussed with your instructor, preferably in advance, and any work missed must be made up. Missing more than three classes will impact your grade for the course. Please note that a 'class' means 8.30-10.00 or 10.30-12.00. Missing 8.30-12.00 once equals missing TWO classes.

When relevant, updates that supersede this hardcopy can be found on the internal pages of the website at: https://iweb.cerge-ei.cz/phd/prog_details/coursebook/

III. PROFESSORS AND LECTURERS TEACHING IN THE SPRING SEMESTER 2015

Andrea Downing, Ph.D.

Academic Skills Center Lecturer

Email: Andrea.Downing@cerge-ei.cz

Andrea Downing is teaching at CERGE-EI since September 2012. Received her Ph.D. in Economic and Social History from the University of Liverpool, UK in 1998 and M.A. in Research Methods in the Social Sciences from the University of Liverpool, UK in 1993. She worked as a Lecturer at the Metropolitan University in Prague from 2010 to 2012. She was also working as a Teacher Trainer at the Metropolitan University in Prague from 2010 to 2011, where she designed and delivered pedagogic training to aspiring and in-service Czech teachers of English. From September 2004 to June 2005 she was an Associate Professor and a Chair of Foundation Studies at Sur University College in Oman.

Research Orientation:

Multiple intelligences and learner autonomy and observing the observer in teaching development.

prof. RNDr. Jan Hanousek, Ph.D.

Citigroup Endowment Professor with Tenure

Email: jan.hanousek@cerge-ei.cz

Web Site: <http://home.cerge-ei.cz/hanousek>

Jan Hanousek is the Citigroup Endowment Professor with tenure at CERGE-EI (under US permanent charter) since Fall 2003. He is also a Full Professor at CERGE, Charles University since November 2002 and a Senior Researcher at the Economics Institute of the Academy of Sciences (EI) since 2003. Graduated in Probability and Statistics from Charles University in 1987, receiving a CSc. (Ph.D.) in Statistics from Charles University in 1990. From 1992–1996 Assistant Professor, from 1996–2002 Docent (Associate Professor) at CERGE, Charles University. From 1992–2003 a Researcher at EI. He served as the Director of CERGE and EI between July 1999–June 2003. Citigroup Professor of Financial Markets at CERGE-EI (under US permanent charter) Fall 2001–Spring 2003. Between 1999–2010 he served as a member of the Executive and Supervisory Committee of CERGE-EI. In 1997 and 2004 Visiting Professor, William Davidson Institute, University of Michigan Business School. In 1996 Research Fellow, City University of New York. 1994–1995 Visiting Post-doctoral Fellow at the Department of Economics, University of Pennsylvania.

Research Orientation:

Applied econometrics, applied finance (corporate finance, financial econometrics), banking and finance, econometrics, public finance, and statistics.

Byeongju Jeong, Ph.D.

Mellon Endowment Associate Professor with Tenure

Email: Byeongju.Jeong@cerge-ei.cz

Webpage: <http://home.cerge-ei.cz/bee>

Byeongju Jeong is the Mellon Endowment Associate Professor with tenure at CERGE-EI (under US permanent charter) and a member of the Executive and Supervisory Committee of CERGE-EI since 2003. He is also an Assistant Professor at CERGE, Charles University and a Researcher at the Economics Institute of the Academy of Sciences of the Czech Republic (EI) since 1997. He served as the Deputy Director for Graduate Studies at CERGE and EI from 2010 to 2012. Graduated from the University of Texas with a B.A. degree in Economics in 1991. Received a M.A. in Economics from the University of Minnesota in 1994, and a Ph.D. in Economics from the University of Minnesota in 1996. Lecturer at Pennsylvania State University from 1996 to 1997. Visiting professor at Universitat Pompeu Fabra in Barcelona from 2003 to 2004.

Research orientation:

Growth and development, macro labor, international macro.

Marek Kapička, Ph.D.

Associate Professor with Tenure

Email: Marek.Kapicka@cerge-ei.cz

Marek Kapička has been an Associate Professor with tenure at CERGE-EI (under U.S. permanent charter) since September 2013 and a member of the Executive and Supervisory Committee of CERGE-EI since May 2014. Marek has been an Assistant Professor at CERGE, Charles University since September 2013, Researcher, February-August 2013. He has also been a Senior Researcher at the Economics Institute of the Academy of Sciences of the Czech Republic since July 2013. Since September 2013 he has served as the Deputy Director for Research of CERGE and EI. He was awarded the J. E. Purkyně Fellowship by the Academy of Sciences of the Czech Republic in 2012. He received his M.A. in Economics from the Charles University in 1998 and Ph.D. in Economics from the University of Chicago in 2003. Since 2012 he has been an Associate Professor (on leave) at the University of California in Santa Barbara. In 2003, he won the Young Economist Award organized by EEA, Stockholm. He has published in journals such as Review of Economic Studies, Journal of Monetary Economics, Review of Economic Dynamics or American Economic Journal in Macroeconomics.

Research orientation:

Macroeconomics, public finance, economic theory, contract theory.

Jaromír Kovářík, Ph.D.

Researcher

Email: jaromir.kovarik@ehu.es

Web Site: <https://sites.google.com/site/webpagesjaromir/>

Jaromír Kovářík has been a Researcher at the Economics Institute of the Academy of Sciences of the Czech Republic since March 2014. Since 2008, he is an Assistant Professor in the Economics Department I of the University of the Basque Country. He holds a PhD in Quantitative Economics from the Economics Department of the University of Alicante (2008).

Research orientation:

Social networks, (behavioural and evolutionary) game theory, learning, experimental economics, social norms (all the topics both theoretically and empirically).

Nikolas Mittag, Ph.D.

Assistant Professor

Email: Nikolas.Mittag@cerge-ei.cz

Nikolas Mittag has been an Assistant Professor at CERGE-EI (under U.S. permanent charter) as of September 2013 and an Assistant Professor at CERGE, Charles University, since July 2013. He has also worked as a Researcher at the Economics Institute of the Academy of Sciences of the Czech Republic from September 2013. He received his B.A. degree in Philosophy & Economics from the University of Bayreuth (2007) and his Ph.D. in Public Policy Studies from the Harris School of Public Policy at the University of Chicago. He was a fellow (Program on Political Institutions) at the Harris School of Public Policy in 2009 and received a dissertation fellowship from the U.S. Census Bureau, USA (2011-2013).

Research orientation:

Applied econometrics, microeconomics, public economics, program evaluation.

doc. Ing. Daniel Münich, Ph.D.

Associate Professor

Email: daniel.munich@cerge-ei.cz

Web Site: <http://home.cerge-ei.cz/munich>

Daniel Münich is an Associate Professor at CERGE-EI (under U.S. permanent charter) on leave. He is a Docent (Associate Professor) at CERGE, Charles University, since 2006, and a Researcher at the Economics Institute of the Academy of Sciences of the Czech Republic (EI) since 1998. Received his Ing. degree in Electrical Engineering in 1991 from the Czech Technical University in Prague, a Ph.D. in Economics in 1998 from CERGE, Charles University. During 1997–1998 a Visiting Scholar at the William Davidson Institute at the University of Michigan Business School and during 1994–1995 at a study stay at the University of Pittsburgh. At CERGE-EI (under US permanent charter) he was Altria Group Associate Professor (Spring 2006 – Spring 2008). Deputy Director for Development and Public

Relations (2003–2006) and Deputy Director for Graduate Studies (1999–2002) at CERGE and EI. Research Affiliate of CEPR in London. He served as an advisor to Ministers of Education, Youth and Sport, and of Finances of the Czech Republic (in 2006 and during 1997–1998), an external advisor of the minister of finance of the Czech Republic (1997, 2002–2004), a steering committee member under the auspices of the Czech vice-minister for economy to supervise the national Strategy for Economic Growth (in 2005). Member of an expert team preparing reform of the Czech tertiary education system (2007–2008). He was a senior advisor to the European Network of Economists of Education (EENEE) (2004–2007), a member of the executive board of the Czech Economic Society (during 2003–2009), a member of the Board of the Sociological Institute of the Czech Academy of Sciences (during 2006–2010). He is a member of the Board of EI (since 1997), a National SYSDEM Correspondent for the EU commission (since 2005), a chair of the governmental Advisory Committee for Social and Human Sciences and a member of Advisory Committee for Evaluation of R&D of the Board for R&D of the Czech government (since 2008), a member of the National Economic Board of the Government (since 2010) and a member of the European Association of Labour Economists (since 2006).

Research Orientation:

Labor economics (empirical issues of unemployment, labor supply and policies, human capital, welfare schemes), economics of education and schooling (public vs. private schools, quality of education, efficiency and equity, selectivity), bibliometric analysis.

Deborah Nováková, M.A.

Head of Academic Skills Center

Email: Deborah.Novakova@cerge-ei.cz

Deborah Nováková is teaching at CERGE-EI beginning in August 2012. She received her M.A. in TEFL/TESL from the University of Birmingham, UK in 2007. From October 2007 to October 2010 she was working as an Instructor, course coordinator, curriculum developer and a professional development facilitator at Maastricht University Language Centre in Netherlands. She was also at Maastricht University from 2001-2003. During the years 2003 to 2007 she was working as an Instructor, curriculum developer and an editor at the Southern Alberta Institute of Technology in Calgary, Canada, where she worked on both domestic and international projects.

Research orientation:

Curriculum design, teacher training and professional development, successful intercultural communication in international contexts, student-centred learning approaches and methods, successful team-building in classroom and teaching in team contexts.

Michal Pakoš, Ph.D.

Assistant Professor

Email: Michal.Pakos@cerge-ei.cz

Webpage: <http://home.cerge-ei.cz/pakos>

Michal Pakoš is an Assistant Professor at CERGE-EI (under US permanent charter) and at CERGE, Charles University since September 2011 and a Researcher at the Economics Institute of the Academy of Sciences of the Czech Republic since August 2009. Earned his MA. degree in Economics (2000/Hons) from the Central European University, Hungary and his Ph.D. degree in Finance (2005) from the Booth School of Business at the University of Chicago, USA.

Research orientation:

Empirical macroeconomics, asset pricing.

Mariola Pytlíková, Ph.D.

Email: jola.pytlkova@gmail.com

Mariola Pytlíková is a senior researcher at the VSB Technical University Ostrava. Previously she worked as a senior researcher at the Danish Institute of Governmental Research (KORA), and as an assistant professor and postdoctoral researcher at ASB, Aarhus University. She received her PhD in Economics from ASB, Aarhus University in 2006. In the past she has held visiting stays at Princeton University, University of Illinois at Chicago, University of Modena and Reggio Emilia and Universitat Pompeu Fabra in Barcelona. She is a research fellow at CReAM, IZA and CELSI.

Research orientation:

Mariola's research interests are in the field of labour economics and industrial relations, in particular topics dealing with causes and consequences of international migration and ethnic labor diversity, wage structures and labour market dynamics, gender differentials on the labour market, and income inequality. She has published in outlets such as the Economic Journal, the European Economic Review, Journal of Population Economics, the Economics of Transition and Labour.

prof. Avner Shaked, Ph.D.

Visiting Professor, Bonn University

Email: shaked@uni-bonn.de

Avner Shaked is a Visiting Professor at CERGE-EI since 1998. Since May 2000 member of the Executive and Supervisory Committee of CERGE-EI. State Street Distinguished Visiting Professor at CERGE-EI since Fall 2001 to Spring 2009. Earned a B.Sc. from Hebrew University, Jerusalem in Mathematics and Physics in 1964. Holds a M.Sc. (1965) from Hebrew University, Jerusalem in Mathematical Logic. In 1972 earned his Ph.D. degree in Economics from Hebrew University, Jerusalem. Since 1989 Professor of Economic Theory, Bonn University, Germany. Since February 2009 a Professor emeritus in Bonn (retired). 1982–1993 member of the Editorial Board of the Review of Economic Studies; 1982–1987 Secretary Organizer of the Workshop in Theoretical Economics, STICERD, London School of Economics; 1983–1989 London Coordinator of the European Doctoral Program; 1988–1991 Associate Editor of The Quarterly Journal of Economics; 1993–1995 Associate Editor of the Journal of Economic Theory; since 1992 a Fellow of Econometric Society.

Research orientation:

Bounded rationality, learning theory, evolutionary theory, experimental game theory, theoretical industrial organization, bargaining theory.

Paul Whitaker, M.A.

Academic Skills Center Lecturer

Email: paul.whitaker@cerge-ei.cz

Paul Whitaker has been teaching at CERGE-EI since August 2014. He earned his Master's from the University of Nottingham, England in 2000. Before coming to CERGE-EI, Paul taught at the Higher Colleges of Technology in the UAE and the School of Business Administration in Karviná, Czech Republic. He also worked for many years as a teacher trainer and business skills trainer focusing on presentation and communication skills for multinational companies.

Research orientation:

Effective communication, student-centered learning approaches and teacher training.

PhDr. Jan Zápál, Ph.D.

Assistant Professor

Email: jan.zapal@cerge-ei.cz

Web Site: <https://sites.google.com/site/jzapal/>

Jan Zápál has been an Assistant Professor at CERGE-EI (under U.S. permanent charter) as of September 2012. He has been an Assistant Professor at CERGE, Charles University and a Researcher at the Economics Institute of the Academy of Sciences of the Czech Republic, since September 2014. Between July 2013 and August 2014, he has also worked as a Researcher at CERGE, Charles University. He received his Master's degree from the Institute of Economic Studies at Charles University in 2005 and a Ph.D. degree from the London School of Economics and Political Science in 2012. During his Ph.D. studies he was a Visiting Student Researcher at the Californian Institute of Technology (2010 to 2011), held an Economica Scholarship awarded by the LSE Department of Economics (2007 and 2008), and won the first prize in the Young Economist of the Year competition organized by the Czech Economic Society (2008). Between 2012 and 2014 he was a Post-doctoral Fellow at IAE-CSIC, Barcelona.

Research orientation:

Political economics, economic theory, dynamic bargaining models, effect of status-quo and its determination in the context of group decision making, decision making in monetary policy committees.

doc. Krešimir Žigić, PhD.

Citigroup Endowment Associate Professor with Tenure

Email: Kresimir.Zigic@cerge-ei.cz

Krešimir Žigić is the Citigroup Endowment Associate Professor with tenure at CERGE-EI (under US permanent charter) since 2007 and a member of the Executive and Supervisory Committee of CERGE-EI since 2004. He is a Docent (Associate Professor) at CERGE, Charles University since 2012 and a Researcher at the Economics Institute of the Academy of Sciences (EI) since 1993.

Graduated from the Faculty of Economics, University of Zagreb, B.A. 1982, M.A. 1988. Ph.D. in Economics, CERGE-EI, 1996. Assistant Professor, CERGE, Charles University, 1996–2012. Deputy Director for Graduate Studies, CERGE and EI 1997–1999 and 2005–2008. At CERGE-EI (under US permanent charter) he was Philip Morris Associate Professor, Fall 2001 – Fall 2002, Altria Group Associate Professor, Spring 2003, and Associate Professor of European Economic Issues, Česká spořitelna Chair, Fall 2003 – Spring 2007. Financial Officer, Rade Koncar Corporation, Zagreb, 1982–1990. Lecturer, Central European University, 1994. Lecturer, World Bank and Joint Vienna Institute Comprehensive Course, 1993–2003.

Research orientation:

International trade, industrial organization, applied microeconomics.

IV. ACADEMIC CALENDAR 2014 – 2015

Academic Calendar for MA/PhD Program 2014/2015 (last update: 4 February 2014)

Month	September	October	November	December	January	February	March	April	May	June	July	August
Week	1-5 8-12 15-19 22-26 29-31	27-31 6-10 13-17 20-24 27-31	3-7 10-14 17-21 24-28	1-5 8-12 15-19 22-26 29-31	5-9 12-16 19-23 26-30	2-6 9-13 16-20 23-27	2-6 9-13 16-20 23-27	13-17 20-24 27-31	4-8 11-15 18-22 25-29	1-5 8-12 15-19 22-26 29-31	6-10 13-17 20-24 27-31	3-7 10-14 17-21 24-28
1st year students	H	Fall Semester M * M * M *	Fall Semester * * *	Holidays F * F * F *	Holidays * * *	Spring Semester M M M	Spring Semester * * *	H	Summer Semester * * * M	Summer Semester * * * M	Summer Semester * * * F	H
2nd year students	H	Fall Semester M * M * M *	Fall Semester * * *	Holidays F * F * F *	Holidays * * *	Spring Semester M M M	Spring Semester * * *	H	Research Seminar Series * * * G C	Research Seminar Series * * * G C	RMS * * * F	H
3rd and 4th year students	H	Fall Semester M * M * M *	Fall Semester * * *	Holidays F * F * F *	Holidays * * *	Spring Semester M M M	Spring Semester * * *	H	Research Seminar Series * * * P DAV	Research Seminar Series * * * P DAV	Research Seminar Series * * * P DAV	H
Preparatory semester												Preparatory Semester H F
	A/D	add / drop period										
	G	general-exams week										
	F	final-exams week										
	M	midterm-exams week										
	U	make-up general-exams week										
	P	graduation ceremony										
	H	official CERGE holiday										
	DPW	dissertation proposal workshops week										
	DAV	dissertation workshops week										
	*	public holidays (all official public holidays in the Czech Republic) - classes supposed to take place in these days will be re-scheduled:										
		28 September - Czech Statehood Day (Sunday)										
		28 October - Establishment of the Czechoslovak Republic (Tuesday)										
		17 November - Freedom and Democracy Day (Monday)										
		24 December - Christmas Eve (Wednesday)										
		25 December - Christmas Day (Thursday)										
		26 December - Christmas Day (Friday)										
		1 January - New Year's Day (Thursday)										
		6 April (Easter Monday)										
		1 May - Labor Day (Friday)										
		8 May - Liberation from Fascism (Friday)										
		5 July - Cyril and Methodius (Sunday)										
		6 July - Burning at Stake of Jan Hus (Monday)										

V. TEACHING SCHEDULE SPRING SEMESTER 2015

The schedules are subject to change.

Most recent versions are at https://iweb.cerge-ei.cz/phd/prog_details/coursebook/

		A.FIRST YEAR STUDENTS				
		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
08:30 – 10:00			Microeconomics II Zápal/ 320	Econometrics I Hanousek 320		
10:00 – 10:30		Coffee Break				
10:30 – 12:00			Microeconomics II Zápal/ 320	Econometrics I Hanousek 320		
12:00 – 13:30		Lunch Break				
13:30 – 15:00		AW 1 - group 1,2 Downing, Nováková 5, 320	AW 1 - group 3 Nováková 320	AW1 - group 1,2 Downing, Nováková 5, 320	AW 1 - group 3 Nováková 320	
15:00 – 16:30		Macroeconomics II Jeong, Kapička 320		Macroeconomics II Jeong, Kapička 320		
16:30 – 18:00						

B. SECOND YEAR STUDENTS

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
08:30 – 10:00	Social&Economic Netws* Kovářík 3	Social&Economic Netws* Kovářík 3	Social&Economic Netws* Kovářík, 3 Labor Economics# Pytlíková, 3	Combined Skills I Downing, Whitaker 3	
10:00 – 10:30	Coffee Break				
10:30 – 12:00	Social&Economic Netws* Kovářík 3	Social&Economic Netws* Kovářík 3	Social&Economic Netws* Kovářík, 3 Labor Economics# Münich/Pytlíková, 3	Combined Skills I Downing, Whitaker 3	Labor Economics*# Münich/Pytlíková 3
12:00 – 13:30	Lunch Break				
13:30 – 15:00	Econometrics IV Mittag 3	Econometrics IV Mittag 3	Advanced Game Theory Shaked, Žigic 3	Advanced Game Theory Shaked, Žigic 3	Labor Economics* Münich/Pytlíková 3
15:00 – 16:30		Financial Markets II Pakoš 3	Financial Markets II Pakoš 3	Macro Topics II Jeong, Kapička 3	Research Seminars
16:30 – 18:00	Research Seminars	Macro Topics II Jeong, Kapička 3		Research Seminars	

* February 16th to March 15th

January 5th to February 15th & March 16th to April 3rd

Labor Economics: regular double lectures will be given by Manola Pytlíková on selected Friday (tbd). Regular lecture by Daniel Munich will be given on Wednesdays. In the middle of the semester when all lecture rooms are occupied, his lectures will be shifted to Friday slots. Rescheduling will be announced in advance on course web site and by email to enrolled students.