

**CERGE-EI**

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



**Course Book for the Academic Year 2000-2001  
The Summer and Preparatory Semester**

Student Affairs Office

Prague, April 2001

**PRINTED VERSION OF THIS COURSE BOOK IS SUBJECT TO POSSIBLE UPDATES  
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## **I. The Structure of Ph.D. Studies in Economics at CERGE-EI**

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, to students from the Czech Republic and other Central and Eastern European (CEE) and former Soviet Union countries. Economic research is an integral part of CERGE-EI activities.

### **A. Contents and Organization of Graduate Study at CERGE-EI**

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

The basic mission of CERGE-EI 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.

### **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 English. This curriculum is standard for the Ph.D. 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-EI 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-EI provides students with the opportunity to investigate more specific fields of interest. Several courses (usually five) are offered each of the two semesters, and the second year students must enroll for a minimum of three. 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-EI faculty members. The program and organization of graduate study is regulated by a CERGE-EI'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 supervisor is then assigned. By the middle of the third year (at the latest), they formulate a thesis proposal and public defense is required. After having successfully defended this 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-EI, and at least one of the members has to be a professor from some other university. 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 rigorous exam and defense of the dissertation.

The study is concluded by a state doctoral examination and public defense of the doctoral dissertation. For students who passed all General examinations with distinction, the main importance will be placed on the defense of the dissertation. Those with less than distinctive examination results can also expect additional, detailed questions from respective fields.

### D. Study Program

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

#### Preparatory semester

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

**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

Semester	Fall	Spring	Summer
Macroeconomics I, II, III	4/2, Exam	4/2, Exam	4/2, Exam
Microeconomics I, II, III	4/2, Exam	4/2, Exam	4/2, Exam
Statistics	4/2, Exam		
Econometrics I and II (Applied)		4/2, Exam	4/2, Exam
Academic Writing I, II	0/4, Credit	0/4, Credit	

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

#### Second Year

Semester	Fall	Spring	Summer
Econometrics III, IV	4/2, Exam	4/2, Exam	
Economics of Transition I, II	4/2, Exam	4/2, Exam	
Financial Markets I, II	4/2, Exam	4/2, Exam	
Industrial Organization I, II	4/2, Exam	4/2, Exam	
International Trade & Finance	4/2, Exam	4/2, Exam	
Labor Economics I, II	4/2, Exam	4/2, Exam	
Public Economics & Economics of European Integration	4/2, Exam	4/2, Exam	
Academic Writing III	0/2, Credit		
Advanced Combined English Skills		0/2, Credit	
Seminar Course	0/2, Credit	0/2, Credit	
Directed Research			0/2, Credit

**Notes:** Second-year students choose at least three (exam-ended) courses per semester. The credits for English courses, the Seminar Course and Directed Research are mandatory. The courses cannot be from the same field. Courses offered may differ slightly from year to year, depending on the faculty in residence. After completing the second year each student must pass General exam in two fields. Upon agreement of CERGE-EI, 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.

## II. Syllabi of the Summer Semester Courses

### A. First year students

#### MACROECONOMICS III

	<i>Lecturer</i>	<i>Lecturer</i>	<i>Teaching Assistant</i>
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#### Course information

The course will, following its title, focus on general equilibrium models of economic growth. The course will start with neoclassical growth models and continues with recent models, which try to explain long-run growth endogenously. The course will conclude with empirical evidence on growth models.

#### Course outline and readings

##### *I. Neoclassical Growth Models*

##### A. Basic Solow-Swan Model

- Barro, Robert and Xavier Sala-i-Martin (1995) *Economic Growth*. McGraw-Hill, Chapter 1
- Solow R. (1956) "A Contribution to the Theory of Economic Growth" *Quarterly Journal of Economics* 70, 65-94
- Romer David (1996) *Advanced Macroeconomics*. McGraw-Hill, Chapter 1
- King R. and S. Rebelo (1993) "Transitional Dynamics and Economic Growth in the Neoclassical Model" *American Economic Review* 83, 908-931

##### B. Ramsey Model

- Barro, Robert and Xavier Sala-i-Martin (1995) *Economic Growth*. McGraw-Hill, Chapter 2
- Romer David (1996) *Advanced Macroeconomics*. McGraw-Hill, Chapter 2A
- Blanchard, Olivier J. and Stanley Fischer (1989) *Lectures on Macroeconomics*. MIT Press, Chapter 2

##### C. Overlapping Generations Models

- Barro, Robert and Xavier Sala-i-Martin (1995) *Economic Growth*. McGraw-Hill, Chapter 3 Appendix
- Romer David (1996) *Advanced Macroeconomics*. McGraw-Hill, Chapter 2B
- Diamond P. (1965) "National Debt in a Neoclassical Growth Model" *American Economic Review* 55, 1126-1150
- Blanchard O. (1985) "Debt, Deficits, and Finite Horizons" *Journal of Political Economy* 93, 223-247

##### D. The Open Economy and Adjustment Costs

- Barro, Robert and Xavier Sala-i-Martin (1995) *Economic Growth*. McGraw-Hill, Chapter 3

##### *II. Endogenous Growth Models*

##### A. "AK" Growth Models (One-Sector Models of Endogenous Growth)

- Barro, Robert and Xavier Sala-i-Martin (1995) *Economic Growth*. McGraw-Hill, Chapter 4
- Romer P. (1986) "Increasing Returns and Long-Run Growth" *Journal of Political Economy* 94, 1002-1037
- Romer P. (1989) "Capital Accumulation in the Theory of Long Run Growth" in R. Barro (ed.) *Modern Business Cycle Theory*, Cambridge MA, Harvard University Press
- Rebelo S. (1991) "Long-Run Policy Analysis and Long-Run Growth" *Journal of Political Economy* 99, 500-521
- Jones L. and R. Manuelli (1990) "A Convex Model of Equilibrium Growth: Theory and Policy Implications" *Journal of Political Economy* 98, 1008-1038
- Barro R. (1990) "Government Spending in a Simple Model of Endogenous Growth" *Journal of Political Economy* 98, S103-S125
- Barro R. and X. Sala-i-Martin (1992) "Public Finance in Models of Economic Growth" *Review of Economic Studies* 59, 645-661

##### B. Two-Sector Models of Endogenous Growth

- Barro, Robert and Xavier Sala-i-Martin (1995) *Economic Growth*. McGraw-Hill, Chapter 5

- Lucas R. (1988) "On the Mechanics of Economic Development" *Journal of Monetary Economics* 22, 3-42
- Lucas R. (1993) "Making a Miracle" *Econometrica* 61, 251-272
- Arrow K. (1962) "The Economic Implications of Learning by Doing" *Review of Economic Studies* 29, 155-173
- Mulligan C. and X. Sala-i-Martin (1993) "Transitional Dynamics in Two-Sector Models of Endogenous Growth" *Quarterly Journal of Economics* 108, 739-773
- Stokey N. (1991) "Human Capital, Product Quality and Growth" *Quarterly Journal of Economics* 106, 587-616
- Young A. (1993) "Invention and Bounded Learning by Doing" *Journal of Political Economy* 101, 443-472
- Irwin D. and P. Klenow (1994) "Learning-by-Doing Spillovers in the Semiconductor Industry" *Journal of Political Economy* 102, 1200-1227

#### C. Endogenous Technological Change

- Barro, Robert and Xavier Sala-i-Martin (1995) *Economic Growth*. McGraw-Hill, Chapters 6, 7
- Aghion, Philippe and Peter Howitt (1998) *Endogenous Growth Theory*. The MIT Press, Chapters 2, 6, 7
- Romer P. (1987) "Growth Based on Increasing Returns Due to Specialization" *American Economic Review Papers and Proceedings* 77, 56-62
- Romer P. (1990) "Endogenous Technological Change" *Journal of Political Economy* 98, S71-S102
- Aghion P. and P. Howitt (1992) "A Model of Growth Through Creative Destruction" *Econometrica* 60, 323-351
- Grossman G. and E. Helpman (1991) "Quality Ladders and Product Cycles" *Quarterly Journal of Economics* 106, 557-586
- Jones C. I. (1995) "R&D-Based Models of Economic Growth" *Journal of Political Economy* 103, 759-784
- Romer Paul (1993) "Idea Gaps and Object Gaps in Economic Development" *Journal of Monetary Economics* 32, 543-573
- Jones C. I. (1998) "Sources of U.S. Economic Growth in a World of Ideas" Mimeo. Stanford University
- Jones C. I. (1998) "Population and Ideas: A Theory of Endogenous Growth" Mimeo. Stanford University

#### D. Endogenous Fertility and Growth.

- Pavilos, Theodore (1995) "Endogenous Fertility, Multiple Growth Paths, and Economic Convergence", *Journal of Economic Dynamics and Control* 19, 1489-1510.
- Tamura, Robert (1996) "From Decay to Growth: A Demographic Transition to Economic Growth", *Journal of Economic Dynamics and Control* 20, 1237-1262.
- Connolly, Michelle and Pietro F. Peretto (1999) "Industrial Revolutions and Demographic Transitions", Duke University WP #99-11.

#### E. Inequality and Growth.

- Aghion, Philippe and Peter Howitt (1998) *Endogenous Growth Theory*. The MIT Press, Chapter 9.
- Aghion, Philippe, Caroli, Eve, and Cecilia García-Peñalosa (1999), "Inequality and Economic Growth: The Perspective of the New Growth Theories", *Journal of Economic Literature* 37, 1615-1660.
- Aghion, Philippe, and Patrick Bolton (1997) "A Trickle-Down Theory of Growth and Development with Debt Overhang", *Review of Economic Studies* 64, 151-162.
- Piketty, Thomas (1997) "The Dynamics of the Wealth Distribution and the Interest Rate with Credit Rationing", *Review of Economic Studies* 64, 173-190.

### III. Money and Growth

- Lucas, R. E. (2000) "Money and Welfare", *Econometrica* 68(2), 247-274
- Cooley, T.F., and G.D.Hansen (1995) "Money and the Business Cycle", In T. F. Cooley (ed.), *Frontiers of Business Cycle Research*, Princeton University Press, Princeton
- Cooley, Thomas E. and Gary D. Hansen (1989) "The Inflation Tax in a Real Business Cycle", *American Economic Review*, 79:4, September 1989, 733-748
- Cooley, Thomas E. and Gary D. Hansen (1992) "Tax Distortions in a Neoclassical Monetary Economy", *Journal of Economic Theory*, February, 290-316
- Cooley, T.F., and G.D. Hansen (1991) "The welfare costs of moderate inflations", *Journal of Money, Credit, and Banking* 23, 483-503
- Dotsey, M., and P. Ireland (1996) "The welfare cost of inflation in general equilibrium", *Journal of Monetary Economics* 37, 29-47
- Lacker, Jeffrey M., and Stacey L. Schreft (1996) "Money and Credit as Means of Payment", *Journal of Monetary Economics*, 38(1): 3-24

- Gillman, Max (1993) "The Welfare Costs of Inflation in a Cash-in-advance Economy with Costly Credit", *Journal of Monetary Economics*, 31 (1), 97-116. Reprinted in M. Parkin, ed., *The Theory of Inflation*, Brookfield: Edward Elgar, 1994, 348-366
- Roubini, Nouriel and Sala-i-Martin, Xavier (1995) "A Growth Model of Inflation, Tax Evasion, and Financial Repression", *Journal of Monetary Economics*, 35(2), 275-301
- Schreft, Stacey (1992) "Transactions Cost and the use of Cash and Credit", *Economic Theory*, 2: 283-296
- Schreft, Stacey (1994) "Economic Growth, Financial Evolution, and the Long-run Behavior of Velocity", *Journal of Economic Dynamics and Control*, 18: 815-848
- Ireland, Peter (1994) "Money and Growth: An Alternative Approach," *American Economic Review*; Vol.84, No.1, March, 47-65
- Gomme, Paul (1993) "Money and Growth: Revisited", *Journal of Monetary Economics*, Vol. 32, pp. 51-77
- Ayigari, S. Rao, R. Anton Braun, and Zvi Eckstein (1998) "Transactions Services, Inflation, and Welfare", *Journal of Political Economy* (December)
- Wu, Y. and J. Zhang (1998) "Endogenous Growth and the Welfare Costs of Inflation: A Reconsideration," *Journal of Economic Dynamics and Control*, Vol. 22, 465-482
- Gillman, Max, Michal Kejak and Akos Valentinyi (1999) "Inflation, Growth, and Credit Services", IAS Vienna, Working Paper 13, 1999
- Gillman, Max and Michal Kejak (1999) "An explanation of stagflation", manuscript

#### IV. Empirical Evidence on the Neoclassical and Endogenous Growth

- Durlauf, Steven N. and Danny T. Quah (1999) "The New Empirics of Economic Growth" in *Handbook of Macroeconomics* (John Taylor and Michael Woodford, eds.). Elsevier Science B.V.
- Temple, Jonathan (1999) "The New Growth Evidence", *Journal of Economic Literature* 37, 112-156.
- Aghion, Philippe and Peter Howitt (1998) *Endogenous Growth Theory*. The MIT Press, Chapter 12

##### A. Growth Accounting

- Barro, Robert and Xavier Sala-i-Martin (1995) *Economic Growth*. McGraw-Hill, Chapter 10
- Solow R. (1956) "Technical Change and the Aggregate Production Function" *Review of Economics and Statistics* 39, 312-320
- Benhabib J. and B. Jovanovic (1991) "Growth Accounting and Externalities" *American Economic Review* 81, 82-113
- Barro, Robert (1998) "Notes on Growth Accounting" NBER, WP 6654
- Hall, Robert E. and Charles I. Jones (1999) "Why Do Some Countries Produce So Much More Output per Worker than Others?" *Quarterly Journal of Economics*, (forthcoming)
- Prescott Edward C. (1997) "Needed: A Theory of Total Factor Productivity" Research Department Staff Report 242, Federal Reserve Bank of Minneapolis
- Young A. (1992) "A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore" in O.Blanchard and S.Fischer (ed.) *NBER Macroeconomics Annual 1992*, MIT Press, Cambridge MA
- Young A. (1995) "The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience" *Quarterly Journal of Economics* 110, 641-680
- Collins S. and B. Bosworth (1996) "Economic Growth in East Asia: Accumulation versus Assimilation" *Brookings Papers on Economic Activity* 2, 135-203
- Rodrik Dani (1997) "TFPG Controversies, Institutions, and Economic Performance in East Asia" NBER, WP 5914

##### B. Convergence and Growth Regressions

- Barro, Robert and Xavier Sala-i-Martin (1995) *Economic Growth*. McGraw-Hill, Chapter 11
- Baumol W. (1986) "Productivity Growth, Convergence, and Welfare: What the Long Run Data Show" *American Economic Review* 76, 1072-1085
- DeLong J. B. (1988) "Productivity Growth, Convergence, and Welfare: Comment" *American Economic Review* 78, 1138-1154
- Barro R. (1991) "Economic Growth and a Cross Section of Countries" *Quarterly Journal of Economics* 106, 407-441
- Mankiw G., D. Romer and D. Weil (1992) "A Contribution to the Empirics of Economic Growth" *Quarterly Journal of Economics* 107, 407-437
- Mankiw G. (1995) "The Growth of Nations" *Brookings Papers on Economic Activity* 1, 275-310
- Levine R. and D. Renelt (1992) "A Sensitivity Analysis of Cross-Country Growth Regressions" *American Economic Review* 82, 942-963

- Sala-i-Martin X. (1997) "I just ran four million regressions" NBER, WP 6252
  - Barro R. and X. Sala-i-Martin (1992) "Convergence" Journal of Political Economy 100, 223-251
  - Jones C. (1995) "Time Series Tests of Endogenous Growth Models" Quarterly Journal of Economics 110, 495-526
  - Jones C. (1997) "Convergence Revisited" Journal of Economic Growth 2, 131-153
  - de la Fuente A. (1997) "The empirics of growth and convergence" J. Economic Dynamics And Control (21)1, 23-73
  - Kocherlakota R. Narayana and Kei-mu Yi (1997) "Is There Endogenous Long-Run Growth? Evidence from the United States and the United Kingdom" J. Money, Credit, and Banking (29) 2, 233-262
  - Benabou, Roland (1996) "Inequality and Growth" NBER Macroeconomic Annual 11, 11-74.
- C. Growth in Transition Countries
- Popov, Vladimir (2000) "Shock Therapy Versus Gradualism: The End of the Debate", Comparative Economic Studies 17, 1-57.
  - EBRD (2000) " Macroeconomic Performance and Prospects " in EBRD Transition Report, London, Chapter 3.
  - EBRD (1999) " Progress in Transition and Institutional Performance" in EBRD Transition Report, London, Chapter 2.
  - Fischer S., R. Sahay and C. A.Vegh (1996) "From Transition to Market: Evidence and Growth Prospects" Journal of Economic Perspectives
  - Sachs J. and A. Warner (1996) "Achieving Rapid Growth in the Transition Economies of Central Europe" Development Discussion Paper No. 544, Harvard Institute for International Development, Harvard University
  - Loungani P. and N. Sheets (1997) "Central Bank Independence, Inflation, and Growth in Transition Economies" Journal of Money, Credit, and Banking 29, 381-399

### Requirements and grading

There will be two exams in the course, a one hour midterm exam and a three hour final exam. There will also be weekly problem sets. Problem sets and class participation will count for 30% of the course grade, and the midterm exam and the final exam will count for 25 % and 45 % of the course grade, respectively.

### Readings

As a main textbook we will use Barro and Sala-i-Martin's Economic Growth.

Recommended books:

Barro, Robert and Xavier Sala-i-Martin: Economic Growth. McGraw-Hill, 1995.

Blanchard, Olivier J. and Stanley Fischer: Lectures on Macroeconomics. MIT Press, 1989.

Romer David: Advanced Macroeconomics. McGraw-Hill, 1996.

Other important books:

Jones, I. Charles: Introduction to Growth. W.W. Norton, New York, 1998

Gylfason, T.: Principles of Economic Growth. Oxford University Press, 1999

Grossman, Gene and Elhanan Helpman: Innovation and Growth in the Global Economy. Cambridge MA, MIT Press, 1991

Kamien, Morton and Nancy Schwartz: Dynamic Optimization: The Calculus of Variations and Optimal Control in Economics and Management. North-Holland, 1991

## MICROECONOMICS III

	<i>Lecturer</i>	<i>Teaching Assistant</i>
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<b>Office hours</b>	To be announced	To be announced

### Course information

This course is the third part of the micro core sequence. The emphasis of the present course is on game theoretic concepts and experimental evidence of human behavior.



## **Course outline and readings (Tentative)**

### Week of May 7 [National holiday: May 8th]

What is a game? Examples of classic games. Extensive form representation and normal form representation of games. Randomized choices (mixed strategies).

MWG ch 7; Camerer ch 1, ch 2; Gardner ch 3

#### *Articles:*

"A taxonomy of 2 x 2 games", Rapoport and Guyer, *General Systems: Yearbook ...* 13, 1966, 195 - 201.

"Naive Bayesian Learning in 2x2 Matrix Games", Eichberger, Haller, and Milne, *Journal of Economic Behavior and Organization* 22, 1993, 69-90.

### Weeks of May 14 and 21

Dominant and dominated strategies. Nash equilibrium. Bayesian Nash. Rationalizability and correlated equilibrium. Nash equilibrium refinements. Static models of oligopoly.

MWG ch 8 and pp. 387 - 400; Camerer ch 1, ch 2; see also Binmore ch 7

#### *Articles:*

"One, Two, (Three), Infinity: Newspaper and Lab Beauty-Contest Experiments", Nagel, Bosch-Domènech, Satorra, and García-Montalvo, <http://www.econ.upf.es/cgi-bin/onepaper?438>

"Cognition and Behavior in Normal-Form Games: An Experimental Study", Costa-Gomes, Crawford, and Broseta [UCSD Discussion Paper 2000-02R (extensively revised version of UCSD Discussion Paper 98-22)], Forthcoming, *Econometrica*, <http://weber.ucsd.edu/~vcrawfor/>

"Ten Little Treasures of Game Theory, and Ten Intuitive Contradictions", Holt and Goeree. Forthcoming, *American Economic Review*, <http://www.people.virginia.edu/~cah2k/>

[Fourth article: TBD]

### Week of May 28 and June 4

Backward induction and subgame perfection. Finite horizon bilateral bargaining. Beliefs and sequential rationality (= time consistency of solution concepts). Entry deterrence. Auctions.

MWG ch 9, also MWG pp. 405 - 417, 423 - 427; and parts of MWG ch 21, 22; Camerer ch 5; Gardner ch 6, ch 11, ch 12

#### *Articles:*

"Detecting Failures of Backward Induction: Monitoring Information Search in Sequential Bargaining", Johnson, Camerer, Sen, and Rymon. Columbia University discussion paper (2000).

"Rationality in Extensive Form Games", Reny. *Journal of Economic Perspectives* 6, 1992, 103 - 118.

"Payoff dominance and the Stackelberg heuristic", Colman and Bacharach. *Theory and Decision* 43, 1997, 1-19.

"The Chain Store Paradox", Selten. *Theory and Decision* 9, 1978, 127 - 159.

"Bidding in Common Value Auctions: How the Commercial Construction Industry Corrects for the Winner's Curse", Dyer and Kagel. *Management Science* 42, 1996, 1463 - 75.

### Week of June 4 and 11

Infinite Horizon bilateral bargaining and repeated games.

MWG pp. 296 - 299, 400 - 405, 417 - 423; Kreps 1990a ; also Binmore ch 8; Camerer ch 4; Gardner ch 7

*Articles:* TBD

[mid-term]

### Weeks of June 11 and 18 [National holiday: July 5th and 6th]

The principal agent problem; incentives and mechanism design.

MWG ch 14 and ch 23; Camerer ch 3, 8; Gardner ch 10

*Articles:* TBD

### Weeks of June 25, July 2, and July 9

Selection among equilibria: Coordination. Nash demand game. A brief introduction to the evolutive approach to equilibrium selection. Evolutionary Stability and Bounded Rationality.

Camerer ch 7; Binmore ch 9; Gardner ch 8

#### *Articles:*

"Duopoly Strategies Programmed by Experienced Players", Selten, Mitzkewitz and Uhlich. *Econometrica* 65, 1997, 517-555.

"The Effects of Costless Pre-play Communication: Experimental Evidence from a Game with Pareto-ranked Equilibria", Blume and Ortmann [working paper; see the working paper section on my website]

"On the Origin of Conventions: Evidence from Symmetric Bargaining Games", Van Huyck, Battalio, Mathur, and Ortmann. *International Journal of Game Theory* 24, 1995, 187-212.

"Time horizon and equilibrium selection in tacit coordination games: Experimental Results", Berninghaus and Ehrhart. *Journal of Economic Behavior and Organization* 37, 1998, 171 - 202.

“Repetition and signalling: experimental evidence from games with efficient equilibria”, Clark and Sefton. Economics Letters 70, 2001, 357 - 362.

[Sixth article: TBD]

Week of July 16

Article:

“Comments on the Interpretation of Game Theory”. Econometrica 59, 1991, 909 - 924.

*[final]*

**Requirements and grading**

Your grade will be determined as follows:

Participation	10%
Mid-term	20%
Final	50%
Four-page paper	20%

Participation: I expect you to come prepared to both lectures and exercise sessions. By this I mean that you have read the reading assignments in advance and have given the problems a serious try. Expect pop-quizzes to test your preparedness. I also expect you to participate in class, especially when we discuss articles and working papers.

Problem sets, reading assignments: I will regularly assign problems. These problems will be discussed during the exercise sessions. (You are encouraged to collaborate on the problem sets, and may submit one problem set with up to 3 names on it.)

Four-page paper (20%): You will have to select an article or a working paper from the attached list, summarize its contents (on the first two pages), critique its assumptions/design/implementation (third page), and sketch out an interesting twist on the model/experiment (fourth page). You may propose other articles of game-theoretic/experimental content.

Final: Comprehensive.

**Readings**

The textbook for the course: Mas-Colell, Whinston, and Green’s MicroEconomic Theory. Oxford University Press 1950 [MWG].

Other books and manuscripts that I will draw on (listed in alphabetical order):

Binmore (1992), Fun and Games. A text on game theory. D.C. Heath and Company

Camerer, Behavioral Game Theory: Experiments on Strategic Interaction

([www.hss.caltech.edu/CourseSites/Psy101/psy101.html](http://www.hss.caltech.edu/CourseSites/Psy101/psy101.html))

Fudenberg & Tirole (1991), Game Theory. MIT Press

Gardner (1995), Games for Business and Economics. Wiley

Kreps (1990), A Course in Microeconomic Theory. Princeton University Press

Kreps (1990a), Game Theory and EconomicsModelling. Oxford University Press

Van Damme (2000) Strategic Equilibrium. (<http://center.kub.nl/pub/dp2000.html>, discussion paper 2000-115; see also discussion paper 2000-96 on non-cooperative games)

Additional articles and working papers (at the rate of one per lecture) will be assigned as indicated in the following course outline. Three copies of the relevant articles are on reserve in the library.

**ECONOMETRICS II**

	<i>Lecturer</i>	<i>Teaching Assistant</i>
<b>Name</b>	Lubomír Lízal	Tomáš Kadlec
<b>Office</b>	310	45
<b>Phone</b>	240 05 114	240 05 206
<b>e-mail</b>	Lubomir.lizal@cerge-ei.cz	Tomas.kadlec@cerge-ei.cz
<b>Office hours</b>	By appointment	

**Course information (Tentative)**

This course is a direct sequel to Econometrics I. It assumes familiarity with the general linear model and knowledge how to deal with basic model and data deficiencies, simultaneous systems, and simple time-series

processes. Each week there will be a different research project drawn from the literature. Using the researcher's data set, the students will apply standard econometrics methods to answer basic economic questions. The objective of the course is to expose the student to variety of common econometric challenges with the ultimate goal of gaining a stronger appreciation of strengths and weaknesses of econometric methodology..

### **Requirements and grading (Tentative)**

Evaluation is done on the basis of weekly problem sets and a final exam. The weights are 65%problem sets and 35% final exam. Getting Fail either from problem sets or final exam means automatically Fail of the course.

### **Readings (Tentative)**

Lott and Ray, Applied Econometrics, Orlando FL, The Dryden Press, 1992.

Supplementary references:

TSP User's Guide and Reference, <http://www.cerge.cuni.cz/tsp/tsp.htm>.

Greene, Econometrics Analysis, NY, Macmillan Publishing Company, 1993.

Kennedy, A Guide to Econometrics, Cambridge MA, MIT Press, 1992.

Maddala, Econometrics, NY, 1977.

Class Schedule and Readings

Chapter, topic, and econometric problem focussed on, from the principal text:

- 33 Purchasing Power Parity and Exchange Rates (basic regression and testing),
- 9 National Forest Wilderness (variable choice),
- 11 Help Wanted (functional forms),
- 1 Pharmaceutical Price Discrimination (dummy variables),
- 4 Money in the Production Function (specification),
- 8 Economic Development and Income Inequality (multicollinearity),
- 20 Investment in the Telephone Industry (distributed lags),
- 16 Visitor Expenditures in Ireland (SUR),
- 13 Agricultural Price Supports (simultaneous equations),
- 30 Fixed versus Adjustable Rate Mortgages (dichotomous choice)

Each chapter corresponds roughly to one week and a specific topic of a problem set. You will be divided into groups by 2 (or 3), randomly, and the groups will differ for each problem set.

## **B. Second year students**

### **DIRECTED RESEARCH**

	<i>Lecturer</i>	<i>Co-lecturer</i>
<b>Name</b>	<b>Jan Svejnar</b>	<b>Randall Filer</b>
<b>Office</b>	326	302
<b>Phone</b>	240 05 193	240 05 213
<b>e-mail</b>	Svejnar@bus.umich.edu	Randall.filer@cerge-ei.cz
<b>Office hours</b>		

#### **Course information**

This course has two inter-related goals. The first is to help students understand the research process. The second is to guide the students in developing preliminary dissertation proposals and selecting their principal thesis supervisors.

The course will consist in part of discussions with individual faculty members and in part of student presentations. The discussions with individual faculty members will focus on the faculty member's research paper that the students will read in advance of the session. During the session, the faculty member will discuss with students how he/she carried out the research project from its inception to its publication in an internationally recognized economics journal. Each faculty member will familiarize the students with what he/she considers to be the important elements of good scientific research and writing, and how these are demonstrated in the paper under discussion. The faculty will be the course instructors and guest speakers. One class period will be devoted to the English Department's perspective on dissertation research and one period to the importance of the dissertation on the job market for new Ph.D.s.

In the second part of the course the students will be presenting preliminary ideas for their dissertation research. The discussions in this part of the course will focus on the work that students need to carry out to develop a high quality dissertation. Guidance will be given as to the proper form and content of a dissertation proposal. In carrying out their background research, the students will use standard bibliographic sources to develop a bibliography in their chosen research area.

#### **Requirements and grading**

By the end of the summer term, students will be expected to have (1) selected a preliminary thesis topic, (2) chosen a tentative chair of their dissertation committee and (3) developed a preliminary dissertation proposal (including a detailed bibliography) that they will finalize during the fall semester. The course grade will be based on the quality of the student's in-class discussion (40%) and preliminary dissertation proposal (60%).

## C. Preparatory Semester

### MACROECONOMICS 0

	<i>Lecturer</i>	<i>Teaching Assistant</i>	<i>Teaching Assistant</i>
<b>Name</b>	<b>Petr Duczynski</b>	<b>Jan Babeckii</b>	<b>Gueorgui Kolev</b>
<b>Office</b>	41	331	
<b>Phone</b>	240 05 208	240 05 158	
<b>e-mail</b>	Petr.Duczynski@cerge-ei.cz	Jan.babeckij@cerge-ei.cz	Gueorgui.Kolev@cerge-ei.cz
<b>Office hours</b>			
	<i>Lecturer</i>	<i>Teaching Assistant</i>	<i>Teaching Assistant</i>
<b>Name</b>	<b>George J. Staller</b>	<b>Marie Hoerova</b>	
<b>Office</b>			
<b>Phone</b>			
<b>e-mail</b>	Gjs3@cornell.edu	Hoerova@hotmail.com	
<b>Office hours</b>			

#### Course information

The first part of the course will include an introduction to basic macroeconomics covering description and analysis of macroeconomic facts: a short outline of economic reasoning, as developed from Adam Smith to present (with emphasis on current, essentially post-Keynesian teachings); and the policy implications (from laissez-faire to economic activism) following from the professed theories. Explanations will be verbal, non-technical, using graphs, simple algebra, and examples from real world.

The second part of the course will be more technical and will be built upon market-clearing models which are micro-based. First, the basic model of isolated individuals will be studied and the role of substitution and wealth effects will be examined. This setup will be extended with the introduction of commodity and credit markets, in which case optimal decisions will be analyzed for given budget constraints. Money will be introduced via the Baumol-Tobin model of optimal cash management. The aggregate behavior of the market-clearing model will be examined, and the impacts of temporary and permanent supply shocks will be determined. Real wage determination will be studied on the labor market. Inflation will be analyzed as a monetary phenomenon; it will be shown how the growth rates of money and prices are interrelated and how expectations are important.

#### Course outline

- Introduction: definitions, basic problems, production function, macroeconomic goals and conflicts among goals, circular flow of economic activity
- Macroeconomic facts: Gross Domestic Product, economic growth, inflation, employment and unemployment, business cycles, productivity, and income distribution
- Major macroeconomic models: reasons for modeling, nature of models, desirable characteristics, basic types of current models
- Economic policies (laissez-faire and activist) and available policy tools: central banks and monetary policy (reserve requirements, discount rates, open market operations), governments and fiscal policy (taxing, spending, transfers, and state budget)
- Open economies: trade theories, international financial markets, and current globalization
- Economics of Robinson Crusoe: consumption and leisure choice
- Markets for commodities and credit: intertemporal decisions
- Demand for money: the Baumol-Tobin model
- Basic market-clearing model: supply shocks, neutrality of money
- Labor market: labor supply and labor demand, real wage
- Money and inflation: expected inflation, real interest rates, superneutrality of money

#### Requirements and grading

Examinations will be based on required readings, lecture notes, and handouts. The midterm exam and the final exam will be for 50% each.

#### Readings

Mankiw, G.: Macroeconomics

Barro, R. and Grilli, V.: European Macroeconomics

## MICROECONOMICS 0

	<i>Lecturer</i>	<i>Lecturer</i>	<i>Teaching Assistant</i>
<b>Name</b>	<b>Evžen Kočenda</b>	<b>Kresimir Zigic</b>	
<b>Office</b>	333	306	
<b>Phone</b>	240 05 149	240 05 245	
<b>e-mail</b>	Evzen.kocenda@cerge-ei.cz	Kresimir.zigic@cerge-ei.cz	
<b>Office hours</b>			

### Course information

This is an introductory part of microeconomics courses. The course will review essential concepts of microeconomic behavior of consumers, firms, and market.

### Course outline

#### 0. Introduction and Overview

Scarcity and Economics, Structure of Economics, Basic Mathematical Background, Overview of the Course, Examples.

#### 1. Households and Consumer Behavior

Tastes, Preferences, Law of Diminishing Marginal Utility, Indifference curves, Rational Behavior, Budget Constraint, Utility Maximization, Optimal Decision of a Consumer, Income and Price Change Analysis: Substitution and Income Effects, Normal and Inferior Goods, Giffen Good, Individual Demand Function, Aggregate Demand.

#### 2. Firms and production

Inputs, Outputs, Fixed, Variable, and Total Costs, Average and Marginal Cost, Labor, Capital, Production Function, Returns to Scale, Optimal Decision of a Producer, Short and Long Run, Aggregate Supply.

#### 3. Price system, Market

Demand and Supply, Market Equilibrium, Elasticities, Violations of the Market Structure.

*Midterm Exam.*

#### 4. Basic concepts of a Market structure

Free Competition, Monopoly, Monopolistic Competition, Oligopoly, Simple Examples.

#### 4A. Pure Competition

Perfectly Elastic Demand,  $p=AR=MR$ , Cost Analysis of a Firm, Optimal Behavior of a Competitive Firm in the Short and Long Run, Conditions for Entry and Exit, Behavior of the Competitive Market, Aggregate Supply, Pure Competition and Efficiency.

#### 4B. Monopoly and related topics

Pure Monopoly an Introduction, Natural Monopoly, Barriers to Entry, Demand Curve and Average Revenue, Elasticities Once More, Cost and Revenue Analysis for Monopoly, Optimal Behavior of a Monopolistic Firm Price and Output Determination. Economic Effects. Price Discrimination, Rent Seeking Behavior. Monopolistic competition: Product Differentiation, the Firm's Demand Curve. Nonprice Competition, Excess Capacity, Advertising, Contestable Markets.

#### 4C. Oligopoly, Game Theory.

Price and Quantity Competition. Collusion, Game Theoretical Essence of a Problem. Short Run and Long Run, Tit For Tat Strategy, Economical Effects of Oligopoly.

#### 5. Overview of other topics in Microeconomics (time permitting)

Welfare Analysis in Different Types of Markets.

Demand for Factors under Competition and with Monopoly Power, Factor Prices.

Basic Concepts of Equilibrium Analysis. Edgeworth Box, Pareto Optimality, Applications.

Externalities - Private vs. Social Costs. Social and Private Benefits, Positive and Negative Externalities, Externalities and Property Rights. Possible Ways to Treat Externalities.

Public Goods - Definition, Properties,

The Role of the Government

*Final exam.*

### Requirements and grading

Examinations will be based on required readings and lecture notes. Midterm and final exams will be worth of 50% each to constitute a grade.

## Readings

The main reference: Schotter, Andrew: Microeconomics. A Modern Approach. Second Edition, New York: Addison Wesley, 1997

Also recommended:

H.R.Varian, Intermediate Microeconomics: a Modern Approach. Norton, NY, 1987

Samuelson P.R., W.D. Nordhaus, Economics, McGraw Hill, 1989

W.J.Baumol, A.S.Blinder, Economics: Principles and Policy. Harcourt Brace, NY, 1985

R.S.Pindyck, D L Rubinfeld, Microeconomics. Macmillan, 1989

D.Laidler, S Estrin. Introduction to Microeconomics. Phillip Allan, 1989

## MATHEMATICS 0

	<i>Lecturer</i>	<i>Teaching Assistant</i>
<b>Name</b>	<b>Viatcheslav Vinogradov</b>	
<b>Office</b>	312	
<b>Phone</b>	240 05 234	
<b>e-mail</b>	Viatcheslav.vinogradov@cerge-ei.cz	
<b>Office hours</b>		

### Course information

This course is designed to make you familiar with the basic mathematical tools used in economic analysis as well as to expose you to the variety of applied problems you may encounter in your further economics studies.

### Course outline

#### 1. Linear Algebra.

- notion of a matrix (4.1) ;
- matrix operations (4.2, 4.3);
- commutative, associative and distribution laws (4.4);
- identity and null matrices (4.5);
- linear dependence of vectors and the rank of a matrix (4.3, 5.1);
- transposes and inverses (4.6);
- the determinant and its properties; Laplace expansion (5.2, 5.3);
- test of nonsingularity (5.1-5.3);
- how to find the inverse matrix (5.4);
- how to solve a linear-equation system: Cramer's rule, Gauss method, the inverse matrix method (5.5);
- quadratic forms; the definition (11.3);
- eigenvalues and eigenvectors; diagonalization of a quadratic form (11.3);
- tests for sign definiteness (11.3).

#### 2. Calculus.

- the concept of limit, operations with limits, limit theorems, L'Hopital rule (6.4, 6.6);
- the derivative and the slope of the curve; continuity and differentiability of a function (6.2, 6.3, 6.7);
- the derivative of implicit function (8.5);
- rules of differentiation of a function of one variable; chain rule (7.1-7.3);
- partial differentiation and Jacobian determinants (7.4, 7.6)
- differentials, total differentials and total derivatives (8.1-8.4);
- second and higher derivatives (9.3);
- extreme values of a function of one variable (9.1-9.4, 9.6);
- Maclaurin and Taylor series (9.5);
- extreme values of a function of two or more variables; first and second order conditions (11.1, 11.2, 11.4);
- concavity and convexity, tests for concavity and convexity (11.5);
- implicit function theorem (8.5, handout);
- indefinite integrals, rules of integration (13.2);
- definite integrals (13.3);
- improper integrals (13.4);
- basics of numerical methods;

### 3. Optimization.

- equally constrained optimization; Lagrange multiplier method, second-order conditions (12.1-12.3);
- quasiconcavity and quasiconvexity (12.4);
- linear programming (19-20)
- nonlinear programming (21.1);
- Kuhn-Tucker conditions (21.2);
- the constraint qualification (21.3);
- Kuhn-Tucker and Arrow-Enthoven sufficiency theorems (21.4, 21.5);

### 4. Dynamics.

- differential equations: an introduction (14.1-14.5);
- linear differential equations with constant coefficients (15.1-15.7);
- systems of linear differential equations; phase diagrams (18.1, 18.2, 18.5, 18.6);
- difference equations: an introduction (16.1, 16.2, 16.6);
- high order difference equations (17.1, 17.4);
- systems of difference equations (18.2);
- dynamic optimization.

### Requirements and grading

Assessment:

Quizzes and written assignments: 20% of total grade

Midterm exam: 30% of total grade

Final exam: 50% of total grade

### Readings

Principal Textbook:

Chiang A.C. Fundamental Methods of Mathematical Economics.

Reference Textbook:

Vinogradov V. A Cook-Book of Mathematics, CERGE-EI Lecture Notes No1.

Supplementary Reading:

Yamane T. Mathematics for Economists.

Takayama A. Analytical Methods in Economics.

Intrilligator M.D. Mathematical Optimization and Economic Theory.

Chiang A.C. Elements of Dynamic Optimization.

Simonovits, A. Mathematical Methods in Dynamic Economics.

## PREPARATORY ENGLISH

	<i>Lecturer</i>	<i>Teaching Assistant</i>
<b>Name</b>	<b>staff</b>	
<b>Office</b>		
<b>Phone</b>		
<b>e-mail</b>		
<b>Office hours</b>		

### Course information

This course is required for students who arrive at CERGE with a level of English that is considered below what is necessary to fully participate in their other prep semester courses and enroll in Academic Writing in the Fall. Following the results of placement instruments individual students will be exempt or assigned to an appropriate section of English which reflects their needs.

### Course outline

Depending on the level of each section, some or all of the topics below will be covered:

- (1) focus on English grammar troublespots;
- (2) practice in writing native-like sentence patterns;
- (3) basic paragraph building;
- (4) vocabulary development;
- (5) reading comprehension;
- (6) spoken English practice (communicating meaning and pronunciation).



**Requirements and grading**

Grading will be based on quizzes and final exam.

Attendance: Since this course is meant to raise a student's English to a level necessary for present and future success in his or her studies at CERGE, regular attendance is obligatory.

**Readings**

Handouts and grammar resource books available in the CERGE-EI Library.

### III. CERGE Faculty Members Teaching in the Summer Semester 2001

#### **Petr Duczynski**

Graduated with honors from the Faculty of Mathematics and Physics, Charles University, Prague in June, 1994. Part-time researcher at EI in January 1997 - July 1998. Internship at the Harvard Institute for International Development, Cambridge, M.A. in January - May 1998. Full-time researcher at EI since August 1998. Defended Ph.D. at CERGE in 1999.

#### **Randall Filer**

B.A. magna cum laude with highest honors in Economics from Haverford College in 1974. Ph.D. in Economics from Princeton University in 1979, where he specialized in labor economics (Industrial Relations Section), demography (Office of Population Research) and urban economics. Between 1978 and 1986 was Assistant Professor of Economics at Brandeis University. Since 1986 has been Associate Professor and then Professor of Economics at Hunter College and the Graduate Center of the City University of New York. Since 1993 has been Visiting Professor of Economics at CERGE, Charles university, including Deputy Director for Graduate Studies for 1994 and 1995, and Visiting Research Scholar at the Economics Institute of the Academy of Sciences of the Czech Republic. Fullbright Scholar, 1993-1994.

#### **Michal Kejak**

Master of Science (Engineer) in Technical Cybernetics, Czech Technical University in Prague, Faculty of Electrical Engineering, Dept. of Control, June 1982. Master of Arts in Economics, Central European University, Prague, awarded by University of the State of New York, August 1993. CSc. (Ph.D.) in Technical Cybernetics, Czech Technical University in Prague, Faculty of Machine Engineering, Department of Automatic Control, October 1993. Diploma, Program in Applied Economics 1993/1994, Institute for Advanced Studies, Vienna (A), June 1994. Workshop on Endogenous Growth and Development, July, 1994, Siena, Italy. Researcher, Institute for Application of Computing Technique in Control, Prague, September 1982 - July 1990. Researcher, Institute for Forecasting of the Academy of Sciences of the Czech Republic, Prague, August 1990 - March 1993. Visiting Research Fellow, Economics Department, Institute for Advanced Studies, Vienna, May 1993 - July 1994. Visiting Scholar, Hoover Institute, Stanford University, September 1995 - June 1996. Since 1993 Researcher, The Economics Institute of the Academy of Sciences of the Czech Republic, Prague. Since 1997 Researcher, CERGE.

#### **Evžen Kočenda**

Graduated in 1985 from the Prague School of Economics with Ing. degree in International Trade Management. MA in Economics from the University of Toledo, Ohio in 1992. Graduate studies in Economics at the University of Houston, Texas with Ph.D. degree in 1996. 1996 - 1998 Deputy Director for Research at CERGE and EI. 1996-1999 Assistant Professor. Since 1999 Associate Professor at CERGE, Charles University. Research Fellow of the William Davidson Institute at the University of Michigan Business School and Research Affiliate of CEPR, London. Economic Advisor to the Minister of Foreign Affairs of the Czech Republic, 1997. Since 1998 member of the editorial board of the journal *Finance a úvěr*. 1998 - 1999 member of the Scientific Council of the Ministry of Transport and Communications. Since 1999 member of the Scientific Council of the Economics Institute.

#### **Lubomír Lízal**

Graduated from Czech Technical University in Prague, The Faculty of Electrical Engineering in 1992. Received his Master's diploma in Systems Programming and Electronic Computers. Is currently Researcher at the Economics Institute of the Academy of Sciences of the Czech Republic. Defended his Ph.D. thesis at CERGE, Charles University, Prague in 1998. Short-term consultant for the World Bank in 1994. Has held fellowships at the Tinbergen Institute, Amsterdam, in 1992, at the University of Pittsburgh, 1994-1995, and at the William Davidson Institute at the University of Michigan, 1996-1997. Member of the European Economic Association, CEPR, Česká ekonometrická společnost (Czech Econometrics Society) and a William Davidson Institute Research Fellow.

### **Chris Mason**

Received a Higher Technical Education Certificate in Engineering Science from Mid-Gloucester Technical College, England, in 1982; B.A. (with Second Class Honours) in Philosophy/Social Administration from Lancaster University in 1990; RSA Cambridge Certificate in T.E.F.L.A. from Hilderstone College, Kent in 1991; and M.A. (TESOL) from the Institute of Education, University of London in 1994. He has taught EFL/ESP in Oman, Saudi Arabia, Kenya, Hong Kong, Jakarta and Tokyo.

### **Andreas Ortmann**

BA in economics and mathematics from University of Bielefeld, Germany (1978); Ph.D. in economics from Texas A&M University (1991); assistant professor of economics at Bowdoin College, ME, USA from 1991 - 1998; research scientist at Center for Adaptive Behavior and Cognition of Max-Planck-Institut fuer Psychologische Forschung for academic year 1996 - 1997 and at Center for Adaptive Behavior and Cognition for Max-Planck-Institut fuer Bildungsforschung [education research] for academic year 1999 - 2000; faculty fellow for economics and administrative science at Colby College, ME, USA, for academic 2000 - 2001. Since May 2000 research scholar at EI and assistant professor at CERGE.

### **Will Seng**

Received a B.A. in Humanities, with a major in English and a minor in French, from Indiana University of Pa. in 1970; M.A. in English Language and Literature from Ohio University, 1974. Instructor of English, 1988-92 and Asst. Professor of English, 1992-95, College of San Mateo, San Mateo, Calif.; EFL Instructor/Specialist, Aeon Intercultural Corp., Kyoto, Japan, 1995-96; freelance academic tutor/editor, 1996-97; Lecturer in English/Academic Writing, CERGE, 1998-present.

### **Sergey Slobodyan**

Received B.Sc. in Physics from Novosibirsk State University, Russia, in 1988. Worked in Institute of Inorganic Chemistry - experimental low-temperature physics, statistical data analysis. In 1995 received M.A. (Economics) and in 2000 Ph.D. (Economics) from the Washington University in St. Louis, USA. Research interests: models of economic growth and development, nonlinear economic models, dynamical systems theory.

### **George J. Staller**

Received Ph.D. from Cornell University, USA in 1959. He also have a 'restitution' Law degree from Prague, 1946-1949, 1992, and a Ph.D. honoris causa degree from Charles University, 1998. Professor of Economics, College of Arts and Sciences, Cornell University, 1960 and continuing. Visiting Professor US Air Force Academy, Colorado 1978-79, and Faculty of Social Sciences, Charles University, 1992 to present, CERGE Preparatory Term, Summer 1994. Ford Foundation Fellowship, Harvard Russian Research Center, 1957-1958. Research Associate, School of International Relations, Columbia University, 1958-1960. Fields of interest: Comparative Economic Systems, Central Planning, Transitional Economies, Macroeconomics.

### **Richard Stock**

Received a M. A. in Literature and Theory, concentrating in Later American Literature and Writing Studies, from the University of Illinois at Urbana-Champaign in 1998, and a B. A. in the Teaching of English, with a minor in Social Science, from the University of Illinois at Urbana-Champaign in 1996. He is a certified secondary school teacher in Illinois, USA, and has taught at Rolling Meadows High School in Illinois and the University of Illinois at Urbana-Champaign. In Prague he has taught at the Anglo-American College, the Czech Technical University in Prague and the U.S. Air Force Defense Language Institute.

### **Jan Švejnar**

Graduated from Cornell University with a B.S. degree in Industrial and Labor Relations in 1974. Graduate studies at Princeton University with an M.A. degree in Economics in 1976 and a Ph.D. in Economics in 1979. Since 1996 the Executive Director of the William Davidson Institute at the University of Michigan Business School and the Everett E. Berg Professor and a Professor of Business Administration and Economics at the University of Michigan. Since 1994 an economic advisor to Czech president Vaclav Havel. From August 1992 to

June 1999 the Director of the Economics Institute of the Academy of Sciences of the Czech Republic. Since 1991 Chairman of the Executive and Supervisory Committee, CERGE-EI, Charles University, Prague.

### **Viatcheslav Vinogradov**

Graduated with honors from St. Petersburg State University, Faculty of Mathematics and Mechanics, with an M.S. in Mathematics, June 1987. 1987-1991 St.Petersburg State University, Faculty of Mathematics and Mechanics, Ph.D. in Mathematics, May 1991; 1994-1995 Central European University, Prague, M.A. in Economics, June 1995, joint CEU/New York State University, M.A. in Economics; 1995-1996 Central European University, Budapest, Advanced Diploma in Transition Economics, July 1996.

### **Kresimir Zigic**

Graduated from the Faculty of Economics, University of Zagreb, B.A. 1982, M.A., 1988. Financial Officer, Rade Koncar Corporation, Zagreb, 1982-1990. Visiting professor, Universite Paris Dauphine, 2000, Lecturer, World Bank and Joint Vienna Institute Comprehensive Course, 1993-present. Lecturer, Central European University, 1994. Researcher at EI, 1994 - present. Assistant Professor, CERGE, 1995 - present. Ph.D. in Economics, CERGE, 1996.

## IV. Academic Calendar for the Year 2000 / 2001

	September 2000	October 2000	November 2000	December 2000	January 2001	February 2001	March 2001	April 2001	May 2001	June 2001	July 2001	August 2001	
	4-8 11-15 18-22 25-29	2-6 9-13 16-20 23-27 30-3	6-10 13-17 20-24 27-1	4-8 11-15 18-22 25-29	1-5 8-12 15-19 22-26 29-2	5-9 12-16 19-23 26-2	5-9 12-16 19-23 26-30	2-6 9-13 16-20 23-27 30-4	7-11 14-18 21-25 28-1	4-8 11-15 18-22 25-29	2-6 9-13 16-20 23-27 30-3	6-10 13-17 20-24 27-31	
<b>First year students</b>	Fall semester 2000				Christmas holidays	Spring semester 2001				Summer semester 2001			Summer holidays
	A/D	M •		F		A/D	M	• F • •	M	• F G			
<b>Second year students</b>	Fall semester 2000				Christmas holidays	Spring semester 2001				Directed research			Summer holidays
	A/D	M •		F		A/D	M	• F • •	G	•			
<b>Third and Fourth year students</b>	Research seminars serie				Christmas holidays	Research seminars serie							Summer holidays
		•						• • •		•			
<b>Preparatory semester</b>											Preparatory semester 2001		
											M	F	

- A/D** add/drop period
- G** general weeks
- F** final week
- M** midterm week (tentative)
- national holidays: April 16th, May 1st, May 8th, July 5th and 6th, October 28th

## V. Schedules of the Summer Semester 2001

The schedules are subject to change.

### A. First year students

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
08:30 – 10:00					
10:00 – 10:30	Coffee Break				
10:30 – 12:00		Microeconomics III. <i>Ortmann</i> <b>#320</b>	Macroeconomics III. <i>Slobodyan/Kejak</i> <b>#320</b>	Microeconomics III. <i>Ortmann</i> <b>#320</b>	
12:00 – 13:30	Lunch Break				
13:30 – 15:00	Econometrics II. <i>Lízal</i> <b>#320</b>	Macroeconomics III. <i>Slobodyan/Kejak</i> <b>#320</b>	Econometrics II. <i>Lízal</i> <b>#320</b>	Econometrics II. Exercises <b>#320</b>	
15:00 – 16:30		Microeconomics III. Exercises <b>#320</b>	Macroeconomics III. Exercises <b>#320</b>		
16:30 – 18:00					

## B. Preparatory Semester

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
08:30 – 10:00	English <i>staff</i> <b>#313</b>	English <i>staff</i> <b>#313</b>	Macroeconomics 0 <i>Duczynski/Staller</i> <b>#7</b>	Exercises Microeconomics B Macroeconomics A <b>A: #313 B: #314</b>	Exercises Mathematics B <b>#313</b>
10:00 – 10:30	Coffee Break				
10:30 – 12:00	English <i>staff</i> <b>#313</b>	Microeconomics 0 <i>Kočenda/Zigič</i> <b>#7</b>	English <i>staff</i> <b>#313</b>	English <i>staff</i> <b>#313</b>	Exercises Microeconomics A Macroeconomics B <b>A: #313 B: #314</b>
12:00 – 13:30	Lunch Break				
13:30 – 15:00	English <i>staff</i> <b>#313</b>	Mathematics 0 <i>Vinogradov</i> <b>#7</b>	Mathematics 0 <i>Vinogradov</i> <b>#7</b>	Microeconomics 0 <i>Kočenda/Zigič</i> <b>#7</b>	
15:00 – 16:30	Macroeconomics 0 <i>Duczynski/Staller</i> <b>#7</b>	English <i>staff</i> <b>#313</b>	English <i>staff</i> <b>#313</b>	Exercises Mathematics A <b>#313</b>	
16:30 – 18:00					

**Notes:**



Academic Year and Semester Study American English for a full year or a semester with other international students in an English Language Center (ELC) Academic Year or Academic Semester Program. ELC - English Language Center <https://www.elc.edu>. ELC - English Language Center <https://www.elc.edu>. Students in the Academic Semester Program may select either the Intensive Course with 30 lessons per week or Semi-Intensive Plus Course with 24 lessons per week, and may include a TOEFL, IELTS, or Cambridge Preparation Course in their program. Students looking for supplemental lessons can add optional one-on-one English classes.

Academic year and semester fact file. Academic semester program course fact file. Preparatory one-semester summer english language course. NUMBER OF HOURS: 370 / 14 weeks LEVEL: A1/A2/B1/B1+ COURSE DATES: 18.06 - 21.09.2018 COURSE FEE: 1650 EUR + 100 EUR MINIMAL NUMBER OF PARTICIPANTS: 8. COURSE HOURS: Monday – Friday between 10.30 a.m.- 14.30 p.m., morning lessons, afternoons and evenings for social activities, one lesson takes 45 minutes. Who is the course for? academic standards with focus on the individual needs of the course participants a pleasant, relaxed atmosphere in the classroom to ensure the barrier in speaking. over 2000. is overcome as quickly as possible. of people who attended.