Course Book for the Academic Year 2003-2004

The Fall Semester

Student Affairs Office

Prague, August 2003

Printed version of this course book is subject to possible updates available at
HTTP://WWW.CERGE-EI.CZ/INTERNAL/STUDY/ACADEMIC/COURSEBOOK
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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-EI 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 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-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, 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.

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, 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 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 and the first and second year of study. (One lecture/exercise unit is 45 minutes long.)

**Preparatory semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture hours / exercise hours</th>
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</thead>
<tbody>
<tr>
<td>Macroeconomics 0</td>
<td>4/2, Exam</td>
</tr>
<tr>
<td>Microeconomics 0</td>
<td>4/2, Exam</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4/2, Exam</td>
</tr>
<tr>
<td>Academic Writing</td>
<td>4/0</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macroeconomics I, II, III</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
</tr>
<tr>
<td>Microeconomics I, II, III</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
</tr>
<tr>
<td>Statistics</td>
<td>4/2, Exam</td>
<td></td>
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</tr>
<tr>
<td>Econometrics I and II (Applied)</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
<td></td>
</tr>
<tr>
<td>Academic Writing I, II</td>
<td>4/0, Credit</td>
<td>4/0, Credit</td>
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</table>

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

**Second Year**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econometrics III, IV</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
<td></td>
</tr>
<tr>
<td>Economics of Transition I, II</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
<td></td>
</tr>
<tr>
<td>Financial Markets I, II</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
<td></td>
</tr>
<tr>
<td>Industrial Organization I, II</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
<td></td>
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<tr>
<td>Money and Credit I, II</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
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<tr>
<td>Public Economics and Finance I, II</td>
<td>4/2, Exam</td>
<td>4/2, Exam</td>
<td></td>
</tr>
<tr>
<td>Academic Writing III</td>
<td></td>
<td>4/0, Credit</td>
<td></td>
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<tr>
<td>Advanced English Combined Skills</td>
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<td>4/0, Credit</td>
<td></td>
</tr>
<tr>
<td>Seminar Course</td>
<td>0/2, Credit</td>
<td>0/2, Credit</td>
<td></td>
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<tr>
<td>Directed Research</td>
<td></td>
<td></td>
<td>0/2, Credit</td>
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</tbody>
</table>

**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.

Topic courses are one semester courses not forming two semester sequence and do not cover comprehensively all material needed for Field General Exam.
II. Syllabi of the Fall Semester Courses

Reading Lists for the Fall Semester are available at www.cERGE-EI.cz/reading. Full texts of the articles from the reading lists are also available in PDF format and you can read them by using Adobe Acrobat Reader.

A. First year students

MACROECONOMICS I

<table>
<thead>
<tr>
<th>Name</th>
<th>Lecturer</th>
<th>Lecturer</th>
<th>Teaching Assistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>329</td>
<td>330</td>
<td></td>
</tr>
<tr>
<td>Phone</td>
<td>240 05 186</td>
<td>224 005 211</td>
<td></td>
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<tr>
<td>e-mail</td>
<td><a href="mailto:Michal.kejak@cerge-ei.cz">Michal.kejak@cerge-ei.cz</a></td>
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<td></td>
</tr>
<tr>
<td>Office hours</td>
<td>Drop-ins and by appointments</td>
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</tbody>
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PART ONE (SLOBODYAN)

Course information

The first part of the first course in the macroeconomic theory sequence will concentrate on developing the tools and concepts necessary to understand the modern macroeconomic theory (discrete time dynamic programming and continuous time optimal control) when uncertainty is not present. The study of specific models will take a back seat to mastering the techniques.

Course outline

*Dynamic Programming and Optimal Control.*

Ia. Discrete Time Dynamic Programming
SL Chapters 1-4, LS Chapter 2.
Ib. Continuous Time Optimal Control.
BF Chapter 2 and Appendices to Chapter 2

Applications

IIa. Consumption and Savings - Ramsey model
BF Chapter 2, Sections 2.1 – 2.3, 2.5

IIb. One-Sector Model of Economic Growth
SL Chapter 5.1, 5.4, 5.7, LS Chapter 11.

IIc. A Tree-Cutting Problem
SL Chapter 5.5.

IId. Investment with Adjustment Costs
LS Chapter 6.

Readings


PART TWO (KEJAK)

Course outline

- Introduction into stochastic optimal growth models growth models - Chapter 2 (S&L)
- Competitive equilibrium with complete markets – Ch. 7 (L&S)
- Ricardian equivalence – Ch. 9 (L&S)
- Asset Pricing – Ch. 10 (L&S)
- shopping-time models - Ch. 17 (L&S)
- costly credit models – Ch. 17 (L&S)
• cash-in-advance models – Ch. 17 (L&S)
• ten monetary doctrines – Ch. 17 (L&S)
• credit and currency models – Ch. 18 (L&S)
• RBC models - Chapter 4 (R)
• money in RBC models – Ch. 2-3 (W)

Requirements and grading
The grade (for this second half of the semester) will be based on the midterm exam (2/3) and occasional home problems (1/3).

Readings
We will use the books below together with journal articles which will be specified in a more detailed syllabus.

Blanchard, Olivier J. and Stanley Fischer:

MICROECONOMICS I

<table>
<thead>
<tr>
<th>Name</th>
<th>Lecturer</th>
<th>Teaching Assistant</th>
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</thead>
<tbody>
<tr>
<td>Office</td>
<td>Libor Dušek</td>
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<td>Phone</td>
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</tr>
<tr>
<td>Office hours</td>
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Course outline:
1. The methodology of economics
   - Positive versus normative economics. “Axioms” of economics. Usefulness of economic approach to studying a wide range of social issues.
2. Consumer Theory
   - Walras law, weak axiom of revealed preference.
3. Theory of the Firm and Production
   - Division of labor. Transaction costs and limits to the size of the firm.
   - Production sets, production functions.
   - Constant-returns-to-scale technology. Substitution and scale effects.
   - Learning-by-doing
   - Investment decisions of firms.
4. Equilibrium
   - The concept of equilibrium. Price as a transmitter of information.
   - Edgeworth box, contract curves, and bargaining.
   - Spatial equilibria with homogenous and heterogenous agents.
   - Market for durable goods and determination of rental vs. purchase prices.
5. Non-competitive market structures
   - Strategic interaction between firms. Reaction functions.
   - Bertrand and Cournot competition.
Requirements and grading:

- Problem sets: 20%
- Midterm: 30%
- Final: 50%

Main Readings:
Murphy, Kevin M: Lecture notes for graduate microeconomics. (available on the course website and in the printed version in the library).

Other readings:
1:

2:

3:

4:

5:
Carlton, Dennis and Jeffrey Perloff: Modern Industrial Organization, Addison Wesley 1999, chapters 4-7.

Useful references:
Course information
The goal of this course is to give students a deep understanding of the statistical theory and practice and to build up a background for econometric analysis. The emphasis of this course is on the principles of probability theory and statistical inference. Aside from theoretical studies, students will make regular use of computers to explore a variety of useful applications.

Course outline
- axiomatic theory of probability:
  sample space, sigma-algebra, probability, probability space, conditional probability and independence, law of total probability, Bayes’ theorem;
- random variables:
  probability distributions, density functions, characteristics of random variables, moment generating functions, Chebyshev’s inequality, Jensen’s inequality, some classical discrete and continuous distributions;
- systems of random variables:
  joint distributions, independence, marginal and conditional distributions, expectations, covariance, correlation, Cauchy-Schwarz inequality, bivariate normal distribution;
- functions of random variables, the distribution of transformations of random variables;
- central limit theorems, modes of convergence of random variables;
- elements of stochastic processes, Markov chains and stochastic calculus (if time allows);
- statistical inference:
  sampling asymptotic theory, sampling, sampling distributions, sample moments, laws of large numbers, chi-square distribution, F-distribution, t-distribution, point and interval estimators, method of moments, likelihood functions, properties of estimators, minimum variance unbiased estimation, Cramer-Rao theorem, hypothesis testing, confidence regions, types of error, nonparametric tests, Bayesian inference;
- introduction to linear regression models.

Requirements and grading
Problem Sets and Written Assignments (20%), Midterm Exam (30%), Final Exam (50%).

Readings
Principal textbook:

Other Useful References:
Course information

The purpose of the course is to begin to prepare students to succeed in the Ph.D. program independently, and to successfully begin Academic Writing 2. This course is based on the first four chapters of the textbook. In addition to this material, there may be other readings and assignments provided by the instructor. The course instructor will provide a more detailed course outline.

Evaluation

Students are evaluated according to their mastery of academic English as well as performance on course assignments. Class participation and attendance may also influence the course grade.

Readings

Giltrow, Janet. *Academic Writing: Writing and Reading Across the Disciplines*, 2nd ed.
B. Second year students

ECONOMETRICS III

<table>
<thead>
<tr>
<th></th>
<th>Lecturer</th>
<th>Teaching Assistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Evžen Kočenda</td>
<td>Alexandr Černý</td>
</tr>
<tr>
<td>Office</td>
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<td><a href="mailto:alexandr.cerny@cerge-ei.cz">alexandr.cerny@cerge-ei.cz</a></td>
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<td>Office hours</td>
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Course information

This course is a part of the sequence in econometrics. The course will focus mainly on the models that use time series and will review current state of theory and empirical work. The course is an applied econometrics course in nature and therefore it will stress application of the topics into applied research. The course will cover topics listed in the course outline below.

Course outline

Univariate Time Series
Unit Roots and Fractional Integration
Trend Breaks and Structural Change
Multiple Time Series
Cointegration
Unit Roots and Cointegration with Panel Data
Heteroskedasticity
Nonlinear Structure

Requirements and grading

The grade for this applied course will be based on the exam and 5-6 assignments that will require to perform econometric and economic analysis. Evaluation will be proportional.

Readings

The text for the course is
Walter Enders: Applied Econometric Time Series (Wiley, 1995) and

Most of the course content will be based on journal papers. A detailed list of required/recommended papers will be distributed in the class.

Brock, W., Dechert, W., Scheinkman, J., and LeBaron, B., 1996, A Test for Independence Based on the Correlation Dimension, Econometric Reviews, 15, 197-235
Course information
Duration: The course is a standard two-semester course, two 90 minutes classes per week plus one exercise session/student seminar presentation.
Contents: Review of theoretical and empirical studies focused on economics of transition. The course is a two semesters one and this syllabus covers the first semester.
Preliminary requirements: Microeconomics, Basic Econometrics
Recommended complementary courses: Industrial Organization, Econometrics

Requirements and Grading
The course will typically consist of traditional lectures and seminar/visiting speaker per week. Lectures will cover up to date papers as well as classical treatments of related topics. There is one midterm and final exam. The students will be asked to prepare presentation of a relevant paper from the transition field.
Grading: Grading will be based on exams, in-class and seminar paper.

Course Outline and Readings
(i) Models of Planned Economies - Classical Literature
a) Literature of a standard view of elementary theory of planning, pre-requisite readings:
  The New Palgrave: Problems of the planned economy
  Kowalik, T.: Lange Lerner mechanism
  Vohra, R.: Planning
  b) Producer in Planned Environment
(ii) Labor managed firm

(iii) Structure of the firm

(iv) Preprivatization Behavior, Privatization and Restructuring
Li, David D. and Francesca Cornelli (1995): Enterprise Behavior Before Restructuring, unpublished manuscript
Cornelli, F. and D. Li: Optimal Privatization with Large Shareholders, working paper, University of Michigan, 1993.


(iv) Privatization: Practical Issues


(v) Side Effects of Privatization; Privatization and Public Sector

Witzum, Amos: Privatization, distribution and economic efficiency in transition


(vi) Entrepreneurs and New Firms


(vii) Firms and the Banking Sector

Dittus, Peter (1994):Bank Reform and Behavior in Central Europe. JCE 19,335-361


Tirole, Jean (1995): Western Prudential Regulation: Assessment and Reflections on its Application to Central and Eastern Europe. Economics of Transition
(viii) **Principal Agent Problems in (Post) Transformation Economies**


Stark, David (1994): Recombinant Property in East European Capitalism

Abel, Istvan and Konstantine Gatsios (1993): The Economics of Bankruptcy and the Transition to a market economy


**Investment Behavior and Soft Budget Constraints**


Leamer, Edward A.: :Access to Western markets, and eastern effort levels, Chapter 3 in ..., pp. 503-526.

**Monopoly Regulation and Welfare, Corruption**


**Useful Books for the sequence:**


Olivier Blanchard, The Economics of Post-Communist Transition.

Note:
The reading list can be updated during the semester in order to accommodate the needs of the course and/or to reflect recent developments in the literature on transition.

<table>
<thead>
<tr>
<th><strong>FINANCIAL MARKETS I</strong></th>
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<tbody>
<tr>
<td><strong>Lecturer</strong></td>
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<tr>
<td>Name</td>
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<td>Office</td>
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<tr>
<td>Phone</td>
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<tr>
<td>e-mail</td>
</tr>
<tr>
<td>Office hours</td>
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**Course description**
This is devoted to a thorough introduction to major areas of asset pricing at the doctoral level. While there are no specific prerequisites, the course is intense in its use of financial mathematics, basic of which will be covered as well.

**Required texts**
Penati, A. and G. Pennacchi, Notes on Asset Pricing, will be made available in electronic form.

**Recommended texts**
Hull, J.C., 2002, Options, Futures, and Other Derivatives, Prentice Hall, Upper Saddle River, NJ.
A list with a number of articles will be distributed in class.

**Course outline**
Choice Under Uncertainty
Risk Aversion and Risk Premia
Risk Aversion and Portfolio
Mean Variance Analysis
An Application of Mean Variance Analysis: Cross-Hedging
The Capital Asset Pricing Model
Arbitrage Pricing Theory
Consumption - Savings, Portfolio Choice, and Asset Pricing
Option Pricing
The Cox-Ross-Rubinstein Option Pricing
Option Pricing Using the Binomial Model
The Essentials of Diffusion Processes and Ito's Lemma
Option Pricing in Continuous-Time and the Black-Scholes Equation
An Equilibrium Model of the Term Structure of Interest Rates
The Risk-Neutral Valuation Method
Options on an Asset that Yields Continuous Dividends
Arbitrage, Equivalent Martingale Measures, Risk-Neutral Valuation, and Pricing Kernels
Course Information
Industrial organization is about strategic interactions of firms within an industry. As such it inspired the study of game theory and in turn was helped by its development. Industrial organization was an unfailing source of interesting situations of interactions that game theory modeled and analyzed.
The course will follow the books of J. Tirole and O. Shy.

Course Outline
The main topics covered by the course will be:
1.) Models of Bertrand and Cournot Competition
2.) Vertical and Horizontal product differentiation
3.) Models of Advertising
4.) Barriers to Entry and Exit
5.) Economics of Information and Innovation, Research and Development

Requirements and Grading
Final exam 100%

Reading
a) Textbooks:
b) Articles:


### MONEY AND CREDIT I

<table>
<thead>
<tr>
<th>Lecturer</th>
<th>Teaching Assistant</th>
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</thead>
<tbody>
<tr>
<td>Name</td>
<td>Radim Boháček</td>
</tr>
<tr>
<td>Phone</td>
<td>240 05 194</td>
</tr>
<tr>
<td>e-mail</td>
<td><a href="mailto:Radim.Bohacek@cerge-ei.cz">Radim.Bohacek@cerge-ei.cz</a></td>
</tr>
<tr>
<td>Office</td>
<td>328</td>
</tr>
<tr>
<td>Office hours</td>
<td>Mon and Thu At 2:30-4:30 p.m.</td>
</tr>
</tbody>
</table>

#### Course information

This course is the first part of the Money and Credit sequence. In the first year you learnt how to understand the basic theory and how to read papers. The goal of this course is to learn how to write papers in macroeconomic theory addressing important issues in real economies. We will study in great detail the essential theoretical topics and tools of modern macroeconomics and apply them to models and numerical simulation in MATLAB.

We will study optimal contracts in asymmetric information models, first in partial and then in general equilibrium. Understanding contracts is the first step to analyze credit markets and their functioning outside the Arrow-Debreu world. Then we will focus on real effects of monetary policy in economies with frictions related to information, limited commitment and limited participation. Finally, we will analyze equilibrium search models and institutions in politico-economic equilibria.

#### Course outline

I. Asymmetric Information and Optimal Contracts
II. Contracts in general equilibrium with heterogenous agents
III. Credit markets and frictions
IV. Real effects of monetary policy
V. Equilibrium search
VI. Politico-economic equilibrium
Requirements and grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Problem sets</td>
<td>30%</td>
</tr>
<tr>
<td>Midterm</td>
<td>30%</td>
</tr>
<tr>
<td>Final</td>
<td>40%</td>
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</tbody>
</table>

The policies related to student conduct will be strictly enforced.

Readings

Main Textbook:

Other Textbooks:

<table>
<thead>
<tr>
<th>PUBLIC ECONOMICS</th>
<th>Lecturer</th>
<th>Teaching Assistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Andrew Austin</td>
<td>tba</td>
</tr>
<tr>
<td>Office</td>
<td>327</td>
<td></td>
</tr>
<tr>
<td>Phone</td>
<td>240 05 121</td>
<td></td>
</tr>
<tr>
<td>e-mail</td>
<td><a href="mailto:Andrew.Austin@cerge-ei.cz">Andrew.Austin@cerge-ei.cz</a></td>
<td></td>
</tr>
<tr>
<td>Office hours</td>
<td>By appointment</td>
<td></td>
</tr>
</tbody>
</table>

Course information

Public economics seeks to understand how governments, or other collections of agents, behave and suggest how an optimal government would behave. In an Arrow-Debreu world governments are not necessary, and cannot enhance economic efficiency. However, real world markets may fail to deliver economic efficiency (market failure) or provide grossly unequal rewards for citizens, opening the possibility that governments can improve efficiency or provide a "fairer" distribution of resources. The first part of the course analyzes violations of the conditions of the First Welfare theorem such as externalities, public goods, non-convexities and imperfect information, and provides a normative basis for government action. The second part of the course concentrates on positive models of government behavior, otherwise known as political economy or public choice. Collective action requires collective choice, and the course will cover basic results of group decision-making such as Arrow's Impossibility Theorem, the Gibbard-Satterthwaite theorem and voting theory. Finally, the course offers a brief introduction to the theory of taxation.

Requirements and grading

I will assign several homework assignments and there will be a midterm and final. Grades will be calculated using the following weights:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>15%</td>
</tr>
<tr>
<td>Class Participation and Presentation</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm</td>
<td>35%</td>
</tr>
<tr>
<td>Final</td>
<td>40%</td>
</tr>
</tbody>
</table>

I expect students to attend all classes, do the readings before class and to check email regularly. I will assume that students with several absences wish to be dropped from the course. Students are encouraged to form study groups for homework and review. Past experience and educational research indicate that students who join study groups significantly outperform students who do not. Study groups may not exceed three members. Membership of study groups must be acknowledged on homework assignments.

No mobile phones, pagers or other electronic devices allowed in the classroom except for pre-approved emergency situations.

I expect academic integrity from all students on all assignments and examinations. Academic honesty is fundamental to scholarship. Violations of academic honesty will be treated harshly. No first warnings will be given. If you have questions about what is acceptable, ask first.
Course outline
Starred (*) readings are required. Some of the articles will be available on the Internet via JSTOR in Adobe Acrobat format. JSTOR is a collection of scholarly journals available in electronic form. The library has one terminal with JSTOR access. Printing with JSTOR can be slow, so be sure to plan ahead. Follow the link to download a free copy of the Adobe Acrobat Reader.

I. Introduction: Review of Fundamental Welfare Theorems
*Introduction (FPE).
  Kreps, ACIMT. Chapters 5.1, 5.2, 5.4, 6.3

II. Theory of Market Failure
A. Externalities
*Ch. 1, FPE.  

B. Public Goods
1. Basic Theory
*FPE Ch. 2, LOPE Ch. 16.
2. Lindahl Pricing
3. Applications and Implications of the Prisoners' Dilemma and Public Goods Theory
*AP, Chapters 9, 10.
  Mancur Olson, The Logic of Collective Action. Chapters 1 and 2
*GTPT, Chapter 5.
4. Application and Extension of Public Goods Theory

C. Choice via Feet and Hands: Voting and Local Public Goods
i. Classics

ii. Recent Directions
*Conley, John and Hideo Konishi (2000):
  "Migration-Proof Tiebout Equilibrium: Existence and Asymptotic Efficiency." working paper

**D. Nonconvexities**

1. **Theory**
   *FPE* chapter 3.

2. **Rent-seeking and regulated monopolies**
   *PF Chapter 9*, pp.188-191.

**III. Social choice and Collective Decisionmaking**

**A. Arrow's Impossibility Theorem**
   *FPE*, Chapter 4


*Saari, Donald (1998): “Connecting and Resolving Sen’s and Arrow’s Theorems.”
   *Social Choice & Welfare* 15, 239-261

Inman, Robert (1985): "The 'New' Political Economy" in *HOPE*
Spear, Stephen Notes on *Arrow's Impossibility Theorem* Another proof strategy.

**GTPT**, Chapter 2 section 1.

   New Haven: Yale University Press.

*AP*, Chapter 4 - good nontechnical discussion of assumptions used in Arrow's Theorem.

**B. Normative Models and Equity**


**C. Spatial voting models**


chapter on the Flying Club

*GTPT*, Chapter 6.

*AP*, Chapter 5.


**D. Mechanism Design, Agenda Setting and Information**

*FPE*, chapter 5.


*AP*, Chapter 6.

*Riker, William Art of Political Manipulation*. Chapters on Pliny the Younger,
   How to Win a Roll Call by Not Voting, Exploiting the Powell Amendment.


*GTPT*, pp.266-284.

**E. Thinking about Markets and Politics**


**F. Federalism**


**VI. Rudiments of Tax Theory**

*AP*, Chapter 5.


**GTPT**, pp.266-284.
A) Excess Burden

*FPE, chapter 6.

B) Introduction to Optimal Taxation
*LOPE, lecture 11.

C) Commodity Taxes (Indirect Taxation)
*LOPE, lectures 11 and 12.

D) Income Taxes (Direct Taxation)
*LOPE, lectures 2 and 13.

Readings
There will be several books used in this course, which are or will be available in the CERGE-EI Library. Abbreviations for commonly referenced books follow in parentheses.

Chief References:

Recommended References:

Classics and Other Useful Books:
Undergraduate level:
These books will be useful to understand basic concepts and institutions. Understanding institutional structures and how they affect economic and political behavior is a central part of public economics.


Slightly more theoretical than Holcombe, but no advanced math is used.


Careful proofs and diagrams, no calculus.

Standard undergraduate public finance text with good introduction to public choice available in PDF and Word formats.


Good intro to the subject with UK examples.


Riker was a central figure in the development of the public choice field, known for his ability to use rational models to understand politics and history. These books use historical examples to illustrate public choice ideas and provide a great introduction to the field. Very interesting reading.


Another standard public finance text. Better on taxation than Holcombe, worse on public choice.

Shepsle, Kenneth and Mark Boncheck (1997), Analyzing Politics: Rationality, Behavior and Institutions, New York: Norton. (AP)

Text based on leading public choice researcher's Harvard undergraduate public choice course. Good discussion of key issues. Not much math at all.

Writing Resources:
Communicating your ideas to colleagues in well-written English is a crucial skill. To persuade others that your ideas are interesting requires clarity in thought and words. Also, providing references to the work and ideas of others is essential.

<table>
<thead>
<tr>
<th>Lecturer</th>
<th>L. Smith</th>
<th>S. Peck</th>
<th>L. Mentz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>308</td>
<td>44</td>
<td>317</td>
</tr>
<tr>
<td>Phone</td>
<td>240 05 242</td>
<td>240 05 197</td>
<td>240 05 254</td>
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<tr>
<td>e-mail</td>
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<td></td>
</tr>
<tr>
<td>Office hours</td>
<td>posted on door</td>
<td>posted on door</td>
<td>posted on door</td>
</tr>
</tbody>
</table>

Course information
The purpose of this class is to prepare students for the written and oral presentations they will be expected to produce as Ph.D. candidates and as economists. The course will focus on developing and refining oral fluency and presentation skills, improving professional writing skills, expanding scholarly economics vocabulary, and increasing overall proficiency in English.

Requirements and Grading
Students are evaluated according to their mastery of oral and written communication skills as well as performance on course assignments. These assignments may include the following:

- Oral presentations
- Professional writing tasks
- Research grant proposal
III. CERGE Faculty Members Teaching in the Fall Semester 2003

Austin Andrew

Radim Boháček

Libor Dušek

Michal Kejak

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

Peter Latham
Received an MA in Applied Linguistics, with Distinction, from Kings College, University of London, in 2001, and a BSc in Sociology from Kingston University, Surrey, England. He was awarded the RSA Diploma in Teaching English as Foreign Language in 1997. Previous teaching experience includes Kings College, University of London, London Metropolitan University, and Queen Mary College, University of London.

Lubomír Lízal

Laura Mentz
Graduated from the Catholic University of America, Washington, D.C., in 1989 with a B.A. in Philosophy (with highest honors) and received an M.A. in Rhetoric and Linguistics from the same university in 1994. She has taught English Composition and ESL courses since 1992 at various colleges in the D.C. area and at George Mason Univ., Fairfax, Virginia, and has been an Instructor in English and ESL at Montgomery College, Rockville, Maryland, June 1997-July 2001. International Student Advisor at Montgomery College, May, 1999-July 2001; Contributing author and editor, Thinking and Writing (1998); Teacher/Consultant, Northern Virginia Writing Project.

Daniel Münich
Received a Ing. degree in 1990 in Electrical Engineering, Electric Propulsion and Control from Czech Technical University (Ceske vysoke uceni technicke) in Prague, Faculty of Electrical Engineering. Received a Ph.D. degree in economics in 1998 from the Center for Economic Research and Graduate Education, Charles University (CERGE) in Prague. Currently an assistant professor at CERGE and since summer 1999 Director of Graduate Studies. Researcher at Economic Institute (EI). Research Fellow of the William Davidson Institute at the University of Michigan Business School and Research Affiliate of CEPR, London. 1997-98 visiting scholar at the William Davidson Institute at the University of Michigan. 1993-96 a researcher at EI. 1997-98 advisor to the Minister of Education, Youth and Sport and the Minister of Finance of the Czech Republic. Chief editor of Svobodne rozhledy journal. Member of the Czech and European Economic Associations and of European Association of Labour Economists. Research interests in the area of empirical labor market and education. Consultant to the Worldbank, European Commission and Institute for Information inEducation (UIV).

Sarah Peck
Sarah Peck received a MA in Anthropology from Temple University, Philadelphia and a BA in Economics from Lafayette College, Easton, Pennsylvania. Previous teaching experience includes Fakulta Ekonomicka, Zapadosceska Univerzita in Cheb; Anglo-American College in Prague; Akiba Hebrew Academy and the Nationalities Service Center in Philadelphia, Pennsylvania.

Avner Shaked

**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.

**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. Currently he is studying to receive an M.A. (expected in 2004) in the Teaching of English as a Foreign Language from the University of Reading.

**Lawrence Smith**

Received a MA in Teaching English as a Foreign Language from the University of Reading, England. Testing advisor, ESP tutor and curriculum coordinator at Bilkent University, Ankara, Turkey (1990-1996); Academic Writing instructor at Moscow State University (1997); Academic English coordinator at the International College of Economics and Finance in Moscow between 1997 and 2000. Before working at CERGE-EI, he was Academic Writing Instructor at Central European University in Budapest.

**Petr Zemčík**


**Kresimir Zigic**

### IV. Academic Calendar 2003-2004

<table>
<thead>
<tr>
<th>Month</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
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<tbody>
<tr>
<td>First year students</td>
<td>Fall semester</td>
<td>Christmas holidays</td>
<td>Spring semester</td>
<td>Summer semester</td>
<td>Summer holidays</td>
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<tr>
<td>A/D</td>
<td>M</td>
<td></td>
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<td>F</td>
<td>A/D</td>
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<td>U</td>
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<td>•</td>
<td>F</td>
<td>•</td>
<td>M</td>
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<tr>
<td>Second year students</td>
<td>Fall semester</td>
<td>Christmas holidays</td>
<td>Spring semester</td>
<td>Directed research seminar</td>
<td>Summer holidays</td>
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<tr>
<td>A/D</td>
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<td>F</td>
<td>A/D</td>
<td>U</td>
<td>U</td>
<td>M</td>
<td>•</td>
<td>F</td>
<td>•</td>
<td>G</td>
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<td>Third and Fourth year students</td>
<td>Research seminar series</td>
<td>Christmas holidays</td>
<td>Research seminar series</td>
<td></td>
<td>Summer holidays</td>
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<tr>
<td>Preparatory semester</td>
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<td>Preparatory semester</td>
<td>M</td>
<td>F</td>
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</table>

- **A/D** Add/drop period
- **G** General-exams weeks
- **F** Final-exams week
- **M** Midterm-exams week
- **U** Make-up General-exams weeks
- **•** National holidays:
V. Schedules for the Fall Semester 2003

The schedules are subject to change. Most recent versions are at [http://www.cERGE-EI.cz/internal/study/](http://www.cERGE-EI.cz/internal/study/)

### A. First year students

<table>
<thead>
<tr>
<th>Time</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tbody>
<tr>
<td>08:30 – 10:00</td>
<td>Microeconomics I</td>
<td>Microeconomics I</td>
<td>Macroeconomics I</td>
<td>Macroeconomics I</td>
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<td>Exercises</td>
<td>Macroeconomics I</td>
<td>Exercises</td>
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<tr>
<td></td>
<td>#320</td>
<td>Microeconomics I</td>
<td>#320</td>
<td>#320</td>
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<tr>
<td>10:00 – 10:45</td>
<td>Coffee Break</td>
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<tr>
<td>10:45 – 12:15</td>
<td>Microeconomics I. Dušek</td>
<td>Statistics</td>
<td>Macroeconomics I</td>
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<td>#320</td>
<td>Zigic/Slobodyan</td>
<td>Slobodyan/Kejak</td>
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<td>#320</td>
<td>#320</td>
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<tr>
<td>12:15 – 13:30</td>
<td>Lunch Break</td>
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<tr>
<td>13:30 – 15:00</td>
<td>Academic Writing I</td>
<td>Macroeconomics I</td>
<td>Academic Writing I</td>
<td>Microeconomics I</td>
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<td>Stock/Latham</td>
<td>Slobodyan/Kejak</td>
<td>Stock/Latham</td>
<td>Dušek</td>
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<td>#320</td>
<td>#314/#12</td>
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<td>15:00 – 16:30</td>
<td>Academic Writing I</td>
<td>Academic Writing I</td>
<td>Statistics</td>
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<td>Smith/Latham</td>
<td>Smith/Latham</td>
<td>Zigic/Slobodyan</td>
<td>Slobodyan</td>
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<td>#320</td>
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<td>16:30 – 18:00</td>
<td>Research Seminar</td>
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<td>Exercises</td>
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### B. Second year students

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<th></th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tbody>
<tr>
<td><strong>08:30 – 10:00</strong></td>
<td>Financial Markets I</td>
<td>Money and Credit I</td>
<td>Public Economics</td>
<td>Econometrics III</td>
<td>Ind. Organization</td>
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<tr>
<td></td>
<td>Zemčík #11</td>
<td>Exercises #313</td>
<td>Exercises #313</td>
<td>Exercises #313</td>
<td>Exercises #313</td>
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<tr>
<td><strong>10:00 – 10:30</strong></td>
<td>Coffee Break</td>
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<tr>
<td><strong>10:30 – 12:00</strong></td>
<td>Money and Credit I</td>
<td>Econometrics III/AECS</td>
<td>Public Economics</td>
<td>Econometrics III/AECS</td>
<td>AECS Tba #11</td>
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<td>Boháček #313</td>
<td>Kočenda/Peck #11/#314</td>
<td>Austin #313</td>
<td>Kočenda/Peck #11/#314</td>
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<td><strong>12:00 – 13:30</strong></td>
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<td><strong>13:30 – 15:00</strong></td>
<td>AECS Smith/Mentz #11/#10</td>
<td>Public Economics Austin #313</td>
<td>Ind.Organization I Shaked-Zigic #313</td>
<td>Money and Credit Boháček #313</td>
<td>Financial Markets I Exercises #313</td>
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<td><strong>15:00 – 16:30</strong></td>
<td>AECS Tba #11</td>
<td>Industrial Organization I Shaked-Zigic #313</td>
<td>Fin. Markets I Zemčík #320</td>
<td>AECS Smith/Mentz #11/#10</td>
<td>Transition Exercises #313</td>
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<td><strong>16:30 – 18:00</strong></td>
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<td>Transition Lizal #313</td>
<td>Transition Lizal #313</td>
<td>Research Seminar #6</td>
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Tba … to be announced later