

## **MA in Applied Economics program: Elective courses in Spring and Summer semester 2016**

### **SPRING SEMESTER 2016:**

#### **1. Human Resource Economics**

Teacher: **Eva Hromádková**

Course description:

This course provides an interdisciplinary study of the main driver of economic output – human capital. In general, we will analyze what determinants affect both private and public investment into its various forms such as education, skills and health stock. We will start with the topics in the Labor economics – interaction of labor supply and labor demand in the labor market; determinants of wage; labor market failures such as unemployment and discrimination and public policies targeting these failures. Then we will continue focus on the field of Health economics and look at the market for health care and its unique characteristics. We will explore both demand (patient) and supply (physicians) side of this market, financing through public and private insurance, as well as “fun” topics such as economics of addiction. As the course is policy oriented, stress will be put on understanding and practical usage of the tools of empirical program evaluation (i.e. evaluation of natural and randomized experiments, DiD estimates, regression discontinuity framework, IV regression and structural modelling).

#### **Summer semester 2015, students' comments:**

*“One of the two best courses during the summer semester! Even though the material was not that easy, the teacher was able to present it in understandable and engaging way. I would recommend this course to other students definitely. Ms. Hromadkova is without any doubts among the best lecturers I have come across during my studies.”*

#### **2. Industrial Organization**

Teacher: **Jiří Střelický**

Course description:

The course will use game-theoretic tools to describe strategic behavior of firms, their interactions in the markets. In particular, course will address such issues as vertical market integration, price discrimination strategies, advertising and product differentiation, barriers to entry. The course also addresses contemporary anti-trust law and competition policies, which are implemented to improve market performance.

Course Plan:

1. Review of micro foundations of a firm.
2. Theory of a firm.
3. Competitive models of oligopoly.
4. Strategic oligopoly behavior.
5. Barriers to entry, entry deterrence.
6. Concentration, market definitions, mergers.
7. Market structure, conduct and performance.
8. Pricing strategies, price discrimination.

9. Vertical and Horizontal product differentiation.
10. Vertical relationships, restrains, integration.
11. Network goods.
12. Competition policy, regulation

**Spring semester 2015, students' comments:**

*"Very interesting course, great outline and connection of the academic and real world applications. Jiri improved a lot comparing first few classes and classes after midterm. He tried to explain everything until everyone understood the topic. His insights on real world applications were very interesting and made seemingly boring course very interesting."*

### **3. Monetary Theory and Policy**

Teacher: **Branislav Saxa**

Course description:

The main aim of this course is to achieve understanding of the goals of monetary policy and instruments available to central banks in order to pursue these goals. After establishing a series of stylized facts, lectures on interest rates and inflation lead to the study of monetary policy transmission mechanism. Consequently, the idea and key ingredients of New Keynesian model are studied. Money creation in modern economy is followed by the overview of money demand models and the role of money in modern monetary economics. While the focus of the course is on the inflation targeting, the alternative monetary policy regimes and the choice among them is discussed too. Towards the end of the course, unconventional monetary policies are covered with the overview of their recent use. Throughout the course, a special attention is paid to monetary policy in open economies and economies in various stage of transition.

**Summer semester 2015, students' comments:**

*"I have learnt a lot and I really liked this course. We had interesting discussions and lectures were not boring at all! Well organized lectures and the teacher belongs to my top 3 teachers that I have had in CERGE-EI. Slides were clear and not overwhelmed with text. The teacher gave lots of examples and illustrations of important concepts. He emphasized the most important things and made sure that everybody in the class would understand it. Super!"*

### **4. Time Series Application in Finance**

Teacher: **Julia Brushko**

Course description:

The course will cover a broad set of modern econometric techniques commonly employed in the finance literature. Over the course the students will address a variety of problems from finance such as building financial models, estimation and inferences of financial models, volatility estimation, risk management, testing financial economics theory, capital asset pricing, etc. The course also provides introduction into the field of economic and especially econometric forecasting based on time series. Students should also be able to evaluate the relative usefulness and reliability of various types of forecasts used in the consulting business and they should be able to design and estimate a simple forecasting mode.

Although most of the models discussed in the class are focused on the financial applications, these empirical models will be useful in other fields such as management studies, business studies, real estate, and economics.

**Summer semester 2015, students' comments:**

*"Very challenging course. I wish the amount of material was a bit reduced so that we could develop better understanding of the concepts, but otherwise this is a fair level for the Master's program. Best personality, amazing teacher."*

**SUMMER SEMESTER 2016:**

**5. Corporate Finance and Valuation**

Teacher: **Richard Podpiera**

Course description:

The goal of this course is to teach students key concepts and their practical applications in corporate finance and valuation so that they are well prepared for starting their careers in corporate finance, investment banking, commercial banking, or management consulting. The aim is to show students how managers solve practical problems using key corporate finance concepts and therefore business cases and real world applications will be used extensively throughout the course. This course partly builds on previous courses in the MAE program, including basic finance concepts like present value, fixed income securities, valuation of stocks, and portfolio theory.

Main topics covered:

1. Introduction
2. Review of key Finance concepts – Present value, valuation of bonds and stocks, investment criteria
3. Making investment decisions and project analysis
4. Risk, return, and the cost of capital
5. Financial analysis, planning, and working capital management
6. Efficient markets, corporate financing, and how corporations issue securities
7. Investments, strategy, and economic rents
8. Payout policy, does debt policy matter, and how much should a corporation borrow?
9. Managing risks
10. Real options
11. Merges and corporate restructuring
12. Special situations – valuing banks (optional)
13. Managing for value
14. What we know and what we do not know about Finance

**Summer semester 2015, students' comments:**

*"Richard was one of the best teachers in the whole program. Very experienced, very well prepared, and with very good approach to students. Open to questions, answering very deeply and in a very knowledgeable way. I learned a lot with this teacher. Very well organized, everything was clear."*

## 6. Credit Risk Analysis

Teacher: **Aelita Belyaeva**

Course description:

The focus of this course is on credit risk management and measurement applied in banking industries. The course provides an overview of credit risk treatment and discusses obligor risk, portfolio risk, capital requirements, credit pricing and Basel accords. The course discusses various techniques to measure, analyze and manage credit risk on real examples from lending practice, where borrower can be either a physical person or a legal entity. It includes dealing with the key risk concepts such as Credit, Default Event, Probability of Default, Loss Given Default, Exposure at Default, Expected Loss, Unexpected Loss. The course will be helpful for those who would build their future career in the banking or consulting industries as credit officers, underwriters or credit risk analysts and modelers.

## 7. Energy Economics

Teacher: **Sherzod Tashpulatov**

Course description:

The course gives an introduction to the economics of energy. Energy is essential for our present modern society: consumption, production and innovation would come to a standstill without (relatively) easy access to cheap energy.

The energy industry is undergoing profound changes that give rise to highly urgent policy issues:

The availability of cheap exhaustible resources is diminishing, the conventional way of energy production strongly affects the environment (especially by its greenhouse gasses emissions), and the industrialized countries are gradually reorganizing their energy industries into competitive energy markets.

The course will give a solid understanding of the economic phenomena underlying these policy issues. Topics will especially focus on the electricity economics (supply, demand, quality, transmission, generation, investment, dispatch, capacity markets, and competition), climate change and climate policy (Kyoto, EU Emission Trading Scheme, subsidies and feed-in tariffs), the economics of oil and gas (reserves, extraction, and energy density) and renewables (potential, challenges, and subsidies).

**Summer semester 2015, students' comments:**

*"Very interesting course -- I feel that I learnt a lot."*

## 8. Topics in Macroeconomics

Teacher: **Eva Hromádková**

Course description:

The course provides the essentials of international finance and its financial management: we will look at the composition of national accounts and balance of payments; analyze structural determinants of exchange rates and their use in foreign exchange markets; explain the evolution and current state of international financial markets and institutions; and finally look at the flows of portfolio, foreign direct investment and global capital markets in general. In its theoretical part it will include elements of growth theory to explain the differences in the growth rates of economies.