

# **Syllabus**

## **Education and innovation policies (4 ECTS)**

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### **1. Course Description**

#### **a) Prerequisites**

This course is taught in the second year of Master's program 'Public policy and Political analysis'.

This course strongly connected with the following disciplines:

- Think tanks as policy actors
- Policy of regulation and reforms
- Comparative public policy

The following knowledge and skills are needed to study this discipline:

- To know basic methods of political analysis
- To be able to analyse independently the most important aspects of political relations
- To have basic academic skills, such as collecting, analysing and logically presenting information and data on a certain topic, participating in a group discussion, writing an essay, making a presentation, etc.

#### **b) Abstract**

The course is created with the objective to highlight and explain main linkages between different approaches to build a successful education policy and how to properly transfer results of this policy to the sphere of innovations and vice versa. The effective implementation of a well-designed education policy is a necessary pre-condition for the societal and economic growth and in contemporary world such kinds of growth are almost unreachable without systematic implementation of innovative practices and ideas. The postindustrial economy has been going through a new cycle of knowledge-based economy where the innovation centric education is in the highest demand. There are many evidence that human development and quality of education contributes to economic growth no less than physical capital. Thus, the emphasis now is on both qualitative and quantitative improvements, and there is as much concern with the equity as with the efficiency of educational investment. The evaluation of education investments becomes even more

complicated when we consider that yet another factor must be taken into account—the important links between education and other sectors.

During this course, we will focus on history and evolution of education as well as different methods and techniques of knowledge transfer and the commercialization of scientific research. Content of the course is structured around systemic approach to the orchestration of knowledge creation and innovation processes by linking the three areas of academic research and knowledge creation, education and training, and business innovation. We will discuss main concepts related to knowledge transfer, such as: third mission, entrepreneurial university, knowledge triangle and the triple helix model. These concepts offer different approaches both for analysis and policy, but they also have some common and overlapping features. As a part of the course, we will also observe how to evaluate efficiency of investments in education and research and what kind of connections and mechanisms must be established to ensure fruitful mutual interaction between education and innovation policies.

As a result of this course, we expect that students will be able to analyze and evaluate relevance and quality of different policy measures and instruments in related fields. Any assessment of policy instruments and measures is usually carried out based on the implicit structure of applied mechanisms, targets and performance indicators. When evaluating research and innovation strategies, besides measurements of productivity, or the positive and negative effects of the adopted measures, one must consider the ties and interrelationships between these strategies. During the evaluations of public programs, in particular those aimed at developing ties between research and business or those aimed to foster scientific excellence, the effectiveness and productivity of such programs are analyzed, whether specific program goals or policy targets have been met is considered.

As this is a course designed keeping in mind the very international group of students (especially from the developing societies as well as from the transition economy), the circularity of education and educating process in the cross-disciplinary developmental policy implementation shall be brought to the understanding. Especially from the very bottom up approach of the policy review, policy correction and optimization of the correct policy implementation owing to the higher level of awareness that is gained in the targeted sector of the development plan in the society

## **2. Learning Objectives**

The course tasks are:

- To provide students with general understanding about concepts of education, linkages between education, innovations and development in different regions with the focus on education reforms and policies
- To analyze how and why education serves as pre-condition for innovation policy in different countries
- To understand the challenges of knowledge transfer and main issues of policy formulation in related fields
- To develop skills and competencies to propose *strategies* and *technologies* for policy-makers

### 3. Learning Outcomes

Having mastered the course, the students are expected:

To:

- Know the range of concepts from the social sciences that assist the understanding and analysis of the relationship between education, learning and implementation of innovations in different countries;
- Understand correlations between education, social capital and knowledge transfer;
- Know main approaches to evaluate educational investments and best practices in educational sphere that connected with implementation of innovations

Be able to:

- analyze and evaluate relevance and quality of different policy measures and instruments in related fields
- monitor public policy agenda and processes in spheres of knowledge transfer and implementation of innovations;
- summarize, compare and interpret data obtained from monitoring or other research methods;
- compose a report on research results and suggest recommendations for policymakers;

To obtain skills to:

- Work with the range of actors functioning in the sphere of knowledge transfer (including civic and informal actors)
- Collect objective and adequate information on the problems in the related field
- Design and implement measures to enhance educational policy in different countries

### 4. Course Plan

№	Topic	Total hours	Contact hours			Independent students' work
			Lectures	Seminars	Training	
1	Evolution of views on role and place of education in society		2	2		11
2	Concept, aims and issues of modern education		2	2	-	11
3	Human resources, education and social capital		2	2	-	12
4	Emancipatory power of education for development and growth		2	2	-	11
5	The concept of innovation		2	2	-	12
6	Innovation and knowledge transfer		2	2	-	11

№	Topic	Total hours	Contact hours			Independent students' work
			Lectures	Seminars	Training	
7	Policy design: combining education and innovations		2	2	-	11
8	Role of education in innovations' development in developing countries		2	2	-	11
9	Investments in mass higher education (1)		2	2	-	11
10	Investments in mass higher education (2)		2	2	-	11
	<b>Total for the 2nd year</b>	<b>152</b>	<b>20</b>	<b>20</b>	<b>-</b>	<b>112</b>

## 5. Reading List

### a) Required

1. Gary Sykes, Barbara Schneider, and David N. Plank. Handbook of Education Policy Research. Routledge 2009 (Access through HSE electronic resources)
2. David K. Cohen and Heather C. Hill Learning Policy : When State Education Reform Works. Yale University Press 2001 (Access through HSE electronic resources)
3. Ernesto Villalba The Relationship between Education and Innovation Evidence from European indicators ([http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/5028/1/PU\\_BSY%206992%20-%20EUR22797\\_EDandINN.pdf](http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/5028/1/PU_BSY%206992%20-%20EUR22797_EDandINN.pdf)) Open access
4. Maximilian Unger, Wolfgang Polt The Knowledge Triangle between Research, Education and Innovation – A Conceptual Discussion. Foresight and STI governance. 2017. Vol. 11. No. 2. P. 10–26 (<https://foresight-journal.hse.ru/data/2017/07/02/1171239631/2-Polt-10-26.pdf>) (Access through HSE electronic resources)
5. Ozturk I. The role of education in economic development: a theoretical perspective. Journal of Rural Development and Administration, Volume XXXIII, No. 1, Winter 2001, pp. 39-47. (Access through HSE electronic resources)
6. Eric A. Hanushek, Ludger Wößmann “The Role of Education Quality in Economic Growth” World Bank survey (<http://library1.nida.ac.th/worldbank/fulltext/wps04122.pdf>) (Open access)
7. Kathleen Hale. How Information Matters: Networks and Public Policy Innovation. Georgetown University Press, 2011
8. UtaWehn, CarlosMontalvo. Knowledge transfer dynamics and innovation: Behaviour, interactions and aggregated outcomes. Journal of Cleaner Production Volume 171, Supplement, 10 January 2018, Pages 56-68 (Open access)

### b) Optional

1. Boosting Open Innovation and Knowledge Transfer in the European Union. Independent Expert Group Report on Open Innovation and Knowledge Transfer ([https://ec.europa.eu/research/innovation-union/pdf/b1\\_studies-b5\\_web-publication\\_mainreport-kt\\_oi.pdf](https://ec.europa.eu/research/innovation-union/pdf/b1_studies-b5_web-publication_mainreport-kt_oi.pdf)) Open access
2. Innovating Education and Educating for Innovation. The power of digital technologies and skills. Centre for Educational Research and Innovation OECD (<http://www.oecd.org/education/cei/GEIS2016-Background-document.pdf>) Open access

## 6. Grading System

### a. Course Grade Criteria

Continuing assessment consists of grading students' homework and of their essays.

- their knowledge of required readings and their acquaintance with at least some of the recommended readings;
- their ability to collect information on a particular topic independently;
- their ability to analyse and generalise the collected information and data;
- their ability to present their material, point of view and arguments;
- their ability to participate in a group discussion
- their ability to discuss other students' work

Final essays must be focused on analysis of relations between the spheres of education and innovations in a country or a region. A student should apply one of analytical models and highlight main features of knowledge transfer from education to any innovative space (business, society, academia, etc)

Cumulative grade for current work formula is:

$$G_{final} = 0,7 G_{cumulative} + 0,3 G_{exam}$$

where

$$G_{cumulative} = 0,2G_{presentation} + 0,5G_{essay} + 0,3G_{ref.paper}$$

The discipline is taught during two modules but there is no intermediary assessment at the end of the first module.

### **7. Examination Type**

Final exam will be held in the form of oral discussion based on the content of student's final essay

### **8. Methods of Instruction**

The course is built upon the combination of modern educational techniques. It combines active and interactive forms of teaching. It relies more on discussion and group work than on conventional lecturing. So, the students are supposed to actively participate in the in-class group work. They are also expected to do their homework and additional reading.

### **9. Special Equipment and Software Support (if required)**

The course requires a computer (laptop) and projector for Power Point presentations.