

## University of Latvia

### Study course “SYSTEMOLOGY OF EDUCATION”

[anno 1997 - course code **Peda6091** – reviewed May 2012]

#### Course abstract

A course is designed to develop student's understanding and purposeful use of systems thinking, providing them with unified theoretical basis of SYSTEMS THEORY as well as with practical experience of systems approach within modern education.

There are three main parts of the course.

\* Part 1 - INTRODUCTION TO SYSTEMS THINKING. World and human: systemic reflection of world by human within his/her consciousness. World as the set of manifold phenomena or mutable (changing and transforming) bodies, where human is one of them. Universal cycle of human's action - cognition, consciousness, behaviour. Spirit as information and processing of information as the basis of human's spiritual activity. World of thoughts as ordered set of coded observed phenomena.

\* Part 2 - FUNDAMENTALS of SYSTEMS THEORY. Main concepts and relationships, scientific research of systems - factology and causality . Systemology as particular systems approach within definite branch of human's practical life.

\* Part 3 - SYSTEMIC RESEARCH AND DEVELOPMENT of EDUCATION. Education as a specially organized aim oriented process and result of gaining life experience for life. System of education as the organizational form of educational activities, its functional structure, hierarchy of education. Stages, kinds and target groups of education, educational programs and standards. Systemic research and development of educational content and pedagogical methods. Actual problems of modern educational systems.

#### Requirements for awarding credit points

Study of this course means realization of thematic educational research within the field "SYSTEMS THEORY WITHIN EDUCATION".

There are three parts within study result evaluation for getting credit points:

\* preparation and submission of educational research survey :

1-st step : introduction and fundamental part of research (partial weight in final evaluation - 40%):

2-nd step: applied part of research and conclusions (partial weight in final evaluation - 40%):

\* submission and public presentation of research survey summary ( 20%)

## **Course plan**

1. INTRODUCTION TO STUDY COURSE (lecture - 2 academic hours)  
Goal, study process, requirements for awarding credit points.
2. SYSTEMS THINKING (lectures - 8 hr, seminars 4 hr)
3. SYSTEMS THEORY (lecture - 2 hr)
4. SYSTEMIC RESEARCH AND DEVELOPMENT of EDUCATION  
(lectures - 10 hr, seminars 4 hr)
5. CONCLUSIONS (lecture - 2 academic hours)  
Modern crisis in life and education, crucial role of the development of systems thinking during life long education..

Totally 32 academic hours (lectures - 24 hr and seminars - 8 hr)

## **Learning outcomes**

The student will be expected to know -

- philosophical and psychological background of systems thinking;
- basic concepts and relationships of general system theory;
- mainframe structures of educational systems and pedagogical activities:

The student will be expected to be able -

- demonstrate his/her skills of simple system analysis and synthesis;
- apply system theory in educational problem solving, project design and decision making;
- observe, understand and describe the hierarchy of complex educational systems.

The student will be expected to show his/her attitude -

- towards the recent developments of political, economic and educational systems;
- towards the research and development of systems approach in pedagogy;
- towards the overall development of systems thinking during modern life long education.

## Notes

Proposed study course „Systemology of Education” is supposed to realize **Systems Thinking about Education** and do it by performing educational scientific research of systemic technology of thinking (systems approach).

The main goal and final result of study will be understanding basic concepts and relationships of Systems Theory as well as conscious usage of this theory in educational practice.

Let's discover **Systems Thinking** and use it as conscious technology (systemology) when solving our problems in modern Life and Education.



**LIFE**  
**EXPERIENCE**  
(knowledge,  
attitudes,  
skills)  
-  
for LIFE  
(cognition,  
consideration,  
behaviour)

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