Propaedeutic Mathematical courses
in the context of continuous learning

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The analysis of system-information culture showed that the activity of each individual had become an interdisciplinary. It occurs in a continuous cognition, it is a life in science passing in the Internet tool environment. Professional perception of every specialty requires natural science super subject authenticate acknowledge. Symbolic idea objectification requires the development of cognitive natural science function of the individual due to the precise expression of the meaning i.e. mathematical language of categories.
The following conclusions relating to training personnel substantial in the age of systems have been drawn. In the context of continuing education and life in science the traditional training should be expanded by super subject universal education. The authors present a new rational model of learning in which the category language is applied to as strategic integration of the student's educational space. Category language as ABC of meanings provides self-organization of the student's subconscious. Propaedeutic courses as a part of the rational model serve integrating tactical disciplines by using over subject educational space. For each student propaedeutic courses form personal educational space of meanings that inherits integrity of super subject educational space. Examples of the training material preparation for the propaedeutic courses in mathematics are given. The full practical implementation of a new model of learning needs the formation of instrumental learning environment that supports student's work in an interdisciplinary electronic library. This is necessary for rapid delivery of adaptive aid to a student.

Keywords: *system-information culture, rational education, super subject, awareness, self-organization, universal algebra, propaedeutic course, universal tutoring, category language, system axiomatic method, intellectual tutoring system.*

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