# REALIZATION OF INTERDISCIPLINARY LINKS BETWEEN DISCIPLINES CONNECTED TO INFORMATION TECHNOLOGIES

**Marina Solovey**

**Abstract**: *The article is devoted to the problem of improving the educational process of teaching "Information Systems in Economics" and "Information Management" courses. One path of solving the problem is to create the interdisciplinary links between courses. The algorithm of creation these links is presented.*

***Keywords**: information system, information management, educational process, course, link,*

***ACM Classification Keywords**: Economics, Management*

## Introduction

Teaching of the IT-disciplines is very difficult for several reasons. The first reason is that a different level of computer skills of students, who start to study these disciplines are needed. Hence, it is necessary to organize an individual approach to each student in auditorium. The second problem is a fast progress in the given scientific domain. Therefore, that content of discipline which was actual, for example, two years ago, now it is necessary to be upgraded. The third reason is, that teaching of IT courses requires high qualification of the teacher or lecturer. The teacher should be competent, capable of lifelong learning, constantly to learn the development of tendencies and directions in the area of information technologies. The fourth reason (it is typical for Russian high schools) is a problem of maintaining the teaching process by material resources. It is necessary to have constant access to the Internet, good hardware and software, etc.

Lecturers and teachers can solve some problems, in particular, by using of modern pedagogical methods in auditoriums, participating in conferences and the seminars devoted to development IT, participating in realization of real business - processes for the concrete enterprises, constant studying scientific, public, Internets - resources on the given sphere. It demands big physical effort and material as well as financial resources from the teacher, and also understanding and support from the university management.

I think, that creation of interdisciplinary links between courses and using of modern pedagogical methods can become the one of the possible ways of the decision of the problems connected with teaching IT.

The necessity and opportunity of creation of interdisciplinary links is offered to be considered by the example of two disciplines “Information technologies in economics” and “Information management”. As the contents of any discipline in Russian higher education system is regulated by state standards, the contents of educational standards of these courses is applied in separate documents to the application.

Creation of the interdisciplinary integrated links between courses should be realized in the following steps sequence:

1) Definition of necessity and statement of the purposes for realization of interdisciplinary links.
2) Studying content of educational standards of disciplines.
3) Revealing opportunities of realization of interdisciplinary links by defining of the common or similar themes in content of standards.
4) Studying the curricula, definition of terms of the beginning and the completing of each discipline.
5) Statement and revealing of necessary common students’ skills before the beginning of studying of each of integrated courses.
6) Creation of common integrated part for both courses.
7) Choice of training methods and teaching technologies for the common part of courses.

8) Updating terms of curricula.
9) Creation of an individual part of each course.
10) Choice of training methods and teaching technologies for the individual part of courses.
11) Definition of necessary skills which should be received by students after finishing of each course (common plus individual parts) and methods of evaluation.

Schematically, process of realization of interdisciplinary links within the framework of several courses is presented on figure 1.

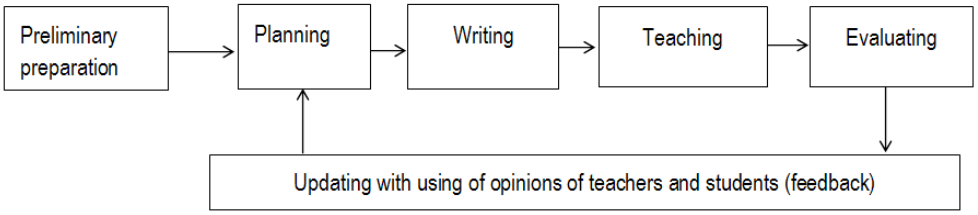


*Figure 1. The scheme of realization of interdisciplinary links process*

Structure of teaching integrated course according to teaching purposes (ITE – course "Information Technologies in Economics", IM – "Information Management") is presented on figure 2.

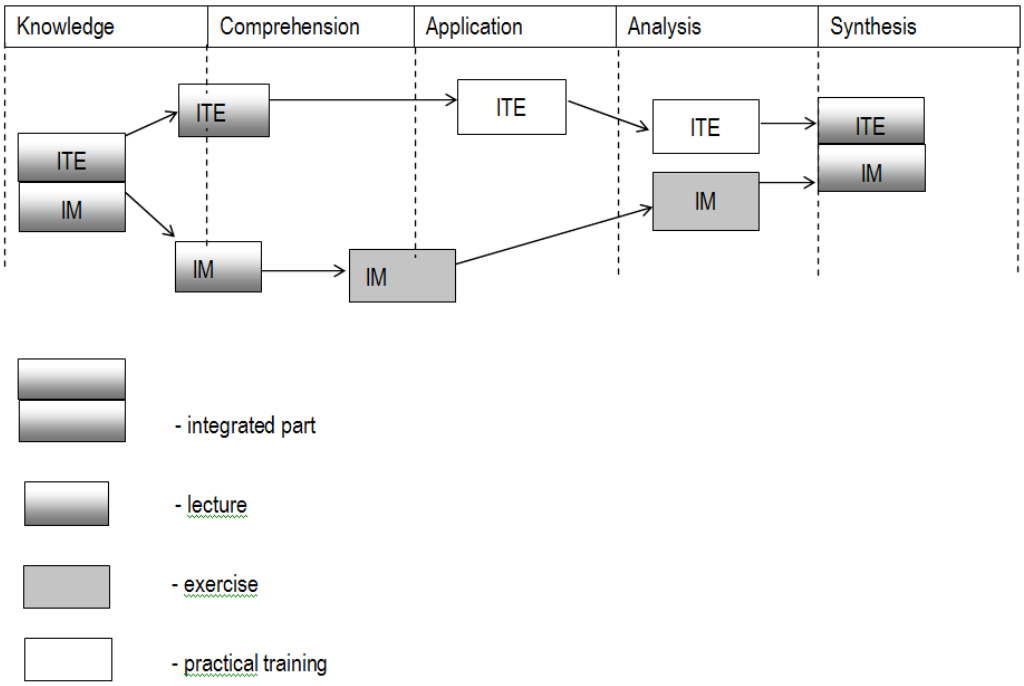


*Figure 2. Structure of teaching integrated course*

These two disciplines are chosen on purpose in the given project. The first discipline "Information Technologies in economy" is taught at the end of the third year of the training and the second discipline - at the end of the fourth year of training. Knowledge and skills, received in the first discipline, are lost in part to the beginning of training on the second discipline. The student does not feel continuity between courses. The teacher is compelled to waste time on an explanation of a material which has been already investigated one year ago.

The first discipline assumes significant part of practical training and develops the skills of work with the economic software. The second discipline assumes the analysis of opportunities of use of information systems and

technologies in economic processes and the processes of making decisions. If these two training processes can be parallel in the same time, it will be useful for students by the following reasons. First, students learn opportunities of concrete information technologies and analyze, how these opportunities and functionality of IT can be applied for the various kinds of enterprises, what are the benefits of using these IT , what opportunities are more important, and what are less important. What difficulties the enterprise can face to train employees for work with the given information technologies, etc.

Parallel learning of two courses will allow improving students' skills at work with IT, and, simultaneously, creating student's opinion about value and utility of the program related to management or decision-making. Students learn IT and consider questions of information management at the same time. Students recollect constantly about functionalities and features at these or other programs, which they had studied one year ago, to make a conclusion for using and choosing of software within the framework of teaching discipline "Information management" discipline.

## Conclusions

Thus, creation of the integrated courses allows to improve process of training of students in IT related subjects, and therefore to raise quality of educational process as a whole.

## Bibliography

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## Authors' Information

***Marina Solovey -*** *Kandidat Nauk, Lecturer of Department of Control Systems and Computing Machinery Kaliningrad State Technical University**;** 236000, Russia, Kaliningrad, Sovietsky prospect/1,*

*Tel: + 7 4012 59-52-26*

***e-mail:*** *solovey66@mail.ru*