

SIMULATION AND OPTIMIZATION OF BUSINESS PROCESSES ON TRANSPORT

COURSE SYLLABUS ABSTRACT

6-05-1042-01 «Transport logistics »

(speciality code and name)

Regional transport and logistics systems

(concentration)

	STUDY MODE	
	Full-time	Part-time (shortened)
Year	3	3
Semester	5	5
Lectures, hours	34	6
Practical classes, hours	16	4
In-class test, (semester, hours)	–	5, 2 hours
Course project, semester	5	5
Exam, semester	5	5
Contact hours	50	12
Independent study, hours	58	106
Total course duration in hours / credit units	108 / 3	

1. Course outline

essence and basic concepts of the discipline; linear programming problems; transport problems; network methods of modeling and managing business processes; simulation modeling; approaches and methods of modeling business processes; data flow diagrams (DFD); functional modeling SADT (IDEF0); modeling processes IDEF3 diagrams; ARIS modeling methods; reengineering business processes.

2. Course learning outcomes

Upon completion of the course, students will be expected

to know:

- basic business processes in transport;
- technology, methods and tools for improving business processes;
- principles of construction, structure and technology of using software tools for SADT modeling (IDEF0); IDEF3 process modeling; DFD data flow modeling; ARIS modeling of business processes of various types of activities of a transport enterprise (production, technological, organizational and managerial; research);

be able to:

- to conduct research and analysis of transport business systems in order to identify business processes;
- to describe business processes in the form of appropriate formal models;
- to conduct research and analysis of business processes in order to formulate proposals for their improvement;
- to determine the optimal parameters of business processes for the implementation of measures to improve the

efficiency of business processes in transport;

to possess a skill:

- application of business process modeling methods in transport;
- knowledge of approaches to solving problems of analysis and parametric optimization of business processes in

transport;

- the use of business process modeling tools.

3. Competencies

Master the basics of research, search, analyze and synthesize information.

Solve standard tasks of professional activity based on the use of information and communication technologies.

Take initiative and adapt to changes in professional activities

Apply modern methodologies for modeling the organization's business processes as a basis for their optimization

4. Requirements and forms of midcourse evaluation and summative assessment

The module-rating system is used. The form of midcourse evaluation is the defense of individual assignments, intermediate certification is an exam.