

MATHEMATICAL PROGRAMMING

ANNOTATION

TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Information systems and technologies specialty 6-05-0611-01

	Form of higher education		
	Full-time (daytime)	Correspondence abbreviated	Correspondence
Course	2		-
Semester	4		-
Lectures, hours	16		-
Laboratory classes, hours	16		-
Practical (seminar) classes, hours	16		
Exam, semester	4		-
Classroom hours in the academic discipline	48		-
Independent work, hours	60		-
Total hours in the academic discipline / credits	108/3,0		

1. purpose of the academic discipline

the purpose of teaching this discipline is to form special knowledge, abilities, skills in the field of mathematical programming, to prepare students for further mastering of new professional knowledge and skills, self-study, continuous professional self-improvement.

2. planned results of studying the discipline

as a result of mastering the discipline the student should

know:

- basic types of mathematical programming problems;
- the simplest methods of solving multicriteria optimisation problems;
- types of linear, integer and dynamic programming problems, methods of solving such problems;
- formulations and methods of solving problems of transport type;
- basic concepts of game theory.

be able to:

- build mathematical models for the simplest problems of optimal decision making;
- use methods of mathematical programming to solve problems.

have the skill:

- skills of application of methods and tools of mathematical programming,
- use of advanced computer technologies to solve complex system problems of forecasting,
- planning, diagnostics, design and management.

3. requirements to the mastering of the academic discipline

mastering of this academic discipline should ensure the formation of the following competences: bod-5 apply the methods of mathematical programming in engineering activity and design of information systems

4. requirements and forms of current and intermediate certification.

Defence of laboratory works – current, oral -written, exam – intermediate, oral -written