MATHEMATICAL METHODS AND MODELS FOR MARKETING DECISION MAKING

COURSE SYLLABUS ABSTRACT

Speciality **6-05-0611-04 «Electronic economy»**
Profiling **«Digital marketing»**

	STUDY MODE	
	Full-time	Part-time
Year	**3**	**4**
Semester	6	8
Lectures, hours	34	8
Laboratory classes, hours	34	8
In-class test, semester (hours)	–	8 (2 hours)
Exam, semester	6	8
Contact hours	68	18
Independent study, hours	40	90
Total course duration in hours / credit units	108 / 3	

1. Course outline

Forecasting and planning in the system of state regulation of the economy. Methodology of forecasting and planning. Basic methods and models of forecasting. Basic methods of planning in the economy. Forecasting and planning of economic growth rates and economic structure. Forecasting and state regulation of inflation and prices. Forecasting and planning of the consumer market. Forecasting and planning of logistics. Expert methods of making marketing decisions. Statistical methods of making marketing decisions. Modeling and optimization of economic systems. Models of optimal linear planning in marketing. Multicriteria optimization of marketing decisions. Methods and models for optimizing the product policy of an enterprise. Methods and models for optimizing the pricing policy of an enterprise. Methods and models for optimizing the distribution policy of an enterprise.

2. Course learning outcomes

Upon completion of the course, students will be expected

to know: basic concepts and approaches in the field of mathematical modeling of marketing situations; main methods of analysis and forecasting of market conditions; tasks of optimizing marketing decisions of a strategic and tactical nature at enterprises.

be able to: set and solve optimization problems that arise in the marketing activities of the enterprise; develop forecasts and optimal plans for the marketing activities of the enterprise for short, medium and long-term periods based on the use of mathematical models; solve the problems of optimizing marketing decisions in conditions of certainty, uncertainty and risks;

to possess a skill: methods of forecasting demand and market conditions; tools for modeling marketing situations; methods for solving mathematically formalized problems in the field of marketing.

3. Competencies

To carry out modeling of the marketing situation for making informed management decisions.

4. Requirements and forms of midcourse evaluation and summative assessment

The module-rating system is used. Midcourse evaluation: defense of laboratory work. Summative assessment: exam.