Syllabus
Course Program

Managerial decisions

Specialty
D3 - Management

Institute
Institute of Economics, Management and International Business

Specialization

Department
Department of Management (204)

Educational program
Business Administration, International Business

Course type
Mandatory

Level of education
First (bachelor's level)

Form of study
Full-time, part-time, distance learning

Semester
3

Language of instruction
English

Lecturers and course developers



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Ph.D. , Associate Professor, Department of Management

Work experience – 5 years. Lecturer of the following subjects: "Managerial decisions", "Team Management Tools", "Business Diagnostics". Author of over 50 scientific papers.

More about the lecturer on the department's website

General information

Summary

The discipline "Managerial decisions" is aimed at developing in students the knowledge and skills to develop, justify and make effective management decisions in modern organizations. The course covers the analysis of management situations, modeling the decision-making process, the use of information technologies to support them, and assessing the impact of decisions on the organization's activities

Course objectives and goals

The purpose of teaching the discipline "Managerial decisions" is to form systemic knowledge in the field of management decisions by mastering the functional scheme of the process of its adoption, studying the elements of uncertainty and the criteria for choosing and applying the appropriate methods. Special attention is paid to the development of practical skills for making effective decisions based on the learned methods.

Format of classes

Lectures, practical classes, individual task . Final control - exam.

Competencies

GC12. The ability to generate new ideas (creativity).
GC09. The ability to learn and to master modern knowledge
SC11. The ability to create and manage effective communication in the process of management
SC12. The ability to analyze and structure the problems of an organization, to form reasonable decisions.

Learning outcomes

LO 04. To show skills of identification of problems and justification of management decisions.
LO 06. To show skills of search, collecting, and analysis of information, calculation of indicators to substantiate management decisions.

Student workload

The total volume of the course is 120 hours (4 ECTS credits): lectures – 32 hours, Workshops– 16 hours, self-study – 72 hours.

Course prerequisites

The discipline, in accordance with the structural and logical scheme of teaching disciplines provided for by the curriculum, is taught in the second year in the third semester

Features of the course, teaching and learning methods, and technologies

Teaching methods and technologies include interactive lectures using presentations. The following tools are used for conducting seminars: problem analysis, problem solving and discussion, teamwork, peer -to-peer , presentation and discussion of reports. The case method, problem-based learning, and work in small groups are also used.

Program of the course

Academic classes

Lectures

Topics of the lectures	Hours
Topic 1. Essence, nature and classification of management decisions 1.1. The essence of managerial decision-making 1.2. The main stages of developing and making managerial decisions 1.3. Classification of managerial decisions 1.4. Systemic and situational approaches to managerial decisions	2
Topic 2. Human factor and psychological aspects of management decisions 2.1. The place of the human factor in the decision-making process 2.2. Features of management decision-making styles 2.3. Informal aspects of decision-making	2
Topic 3. Classification of decision-making methods. 3.1. Classification of methods for making management decisions 3.2. Methods for diagnosing a management problem 3.3. Methods for generating ideas 3.4. Methods for evaluating and choosing a solution	2
Topic 4. Models and methods of optimal decision-making 4.1. Mathematical modeling of economic systems 4.2. Optimization models (linear programming, transport problem) 4.3. Inventory management models, mass service, simulation modeling 4.4. Optimization calculation software	2
Topic 5. Expert methods in developing management decisions	2

5.1. Expert assessments in the system of heuristic methods
5 .2. Formation of expert assessments and assessment of expert consensus

Topic 6. Forecasting methods in the development of management decisions 6.1. The role and place of forecasting in the decision-making process 6.2. Quantitative forecasting methods 6.3. Qualitative forecasting methods (Delphi , scenarios, foresight) 6.4. Evaluating forecast accuracy and choosing a method	2
Topic 7. Making strategic management decisions 7.1. Strategic management and strategic decisions 7.2. Strategic thinking and vision 7.3. The process of setting organizational goals 7.4. Tools for justifying strategic decisions (SWOT, PESTEL, portfolio matrices)	2
Topic 8. Making managerial decisions in the field of marketing 8.1. Strategic and operational marketing management issues 8.2. The process of strategic marketing analysis 8.3. Justification of strategic and tactical marketing decisions 8.4. Digital technologies and marketing management decision-making	2
Topic 9. Management decisions in the field of innovation activity 9.1. Concept and classification of innovations, sources of innovative development 9.2. Management of the innovation process in a company 9.3. Adoption of innovative decisions in marketing product policy	2
Topic 10. Making financial decisions 10.1. The essence, types and criteria of financial decisions 10.2. Decisions on capital structure and sources of financing 10.3. Financial analysis as a basis for substantiating decisions; working capital management	2
Topic 11. Making investment decisions 11.1. Investment process and types of investment decisions 11.2. Methods of assessing the effectiveness of investment projects 11.3. Investment portfolio formation under conditions of limited resources	2
Topic 12. Making management decisions on issues of foreign economic activity of an enterprise 12.1. Prerequisites and analytical work on the preparation of management decisions in the field of foreign economic activity 12.2. Marketing management decisions when an enterprise enters foreign markets 12.3. Features of making management decisions in different ways of entering the foreign market	2
Topic 13. Making personnel management decisions 13.1. Main types of personnel management decisions and requirements for them 1 3.2. Evaluation of personnel performance and adoption of relevant management decisions 1 3.3. Management decisions on staff incentives 1 3.4. Adoption of personnel management decisions in the context of digitalization	2
Topic 14. Risks of management decisions 14.1. The essence and prerequisites for the emergence of uncertainty and risks in management 1 4.2. Types of risks and approaches to their identification in management 1 4.3. Features of making risk-oriented and risky management decisions 14.4. Methods of choosing solutions under uncertainty	2

Topic 15. Organization of implementation, control and evaluation of the effectiveness of management decisions 15.1. Planning and organizing the implementation of a management decision 15.2. Communication and bringing the decision to the executors; resistance to changes 15.3. Control and monitoring of the implementation of the decision 15.4. Criteria and methods for assessing the effectiveness of management decisions 15.5. Responsibility of the manager for the decision made; adjustment of decisions based on the results of control	2
Topic 16. Information and analytical support for management decisions 16.1. Information as a resource for decision-making: data quality requirements, sources, information barriers 16.2. Decision support systems (DSS): architecture, classes, areas of application 16.3. Business analytics and data visualization 16.4. Artificial intelligence and machine learning in management decision-making 16.5. Risks of decision automation: algorithm bias, transparency, ethics and human responsibility for decisions	2
Total hours	**32**

Workshops

If applicable

Topics for workshops/seminars	Hours	Weighting coefficients *a*
Topic 1. Analysis and classification of management decisions	1	1
Topic 2. Human factor in decision-making: styles, behavioral factors and errors based on case examples	2	1
Topic 3 Selection and application of optimal decision-making methods and models	1	1
Topic 4 Organization of expert assessment: formation of expert conclusions and verification of the consistency of assessments	2	1
Topic 5 Substantiation of a strategic decision using forecasting methods	2	1
Topic 6: Development and justification of strategic and tactical marketing decisions based on marketing analysis	2	1
Topic 7 Making management decisions within the innovation process	2	1
Topic 8 Justification of financial and investment decisions (evaluation of alternatives and expected results)	2	1
Topic 9 Preparation and selection of a management decision regarding the enterprise's entry into the foreign market	1	1
Topic 10 HR decision-making: personnel assessment, incentives and decisions in the context of digitalization of HR processes	1	1
Total hours	**16**	$\sum_{i=1}^{n} a_i$

Laboratory classes

If applicable

Topics for laboratory classes	Hours	Weighting coefficients *a*
Topic 1. Introduction ... Subtopics / list of questions ...	2	0,5
Topic 2. Features of ... Subtopics / list of questions ...	2	1,5
Total hours	**32**	$\sum_{i=1}^{n} a_i$

Control works

If applicable

Topics for control works	Weighting coefficients *b*
Topic 1. Introduction ... Subtopics / list of questions ...	0,5
Topic 2. Features of ... Subtopics / list of questions ...	1,5
Total	$\sum_{i=1}^{m} b_i$

Self-study

Self-study includes independent work on theoretical materials and completion of individual assignments (if any).

Work on theoretical materials

Topics for self-study	Hours
Topic 1. The Role of Managerial Decisions in Organizational Performance	8
Topic 2. Decision-Making Models in Management	8
Topic 3. Decision-Making Under Risk and Uncertainty	8
Topic 4. The Role of Information in Managerial Decision-Making	8
Topic 5. Group Decision-Making and Team-Based Approaches	8
Topic 6. The Influence of Cognitive Biases on Managerial Decisions	8
Topic 7. Ethical Issues in Managerial Decision-Making	8
Topic 8. Digital Technologies and Artificial Intelligence in Managerial Decision-Making	8
Topic 9. Managerial Decision-Making in Crisis Situations	8
Total hours	**72**

Topics for individual assignments

The purpose of the Individual Assignment in the discipline is to develop independent work skills, use theoretical and practical knowledge in making management decisions; independent qualified work with regulatory and reference documents; acquisition of skills in planning and conducting research, developing conclusions and proposals.
Working on an individual assignment, a higher education applicant must master the skills of correctly stating the problem and justifying its relevance, formulating the goal and objectives of the study, building a logical plan and optimal structure, working with literary sources and statistical information, analyzing and evaluating various aspects of the organization's activities, substantiating their own generalizations, conclusions and proposals.

Topics for individual assignments

1. Improving the process of making managerial decisions in the organization
2. Modern methods of making managerial decisions at the enterprise
3. Analysis of the effectiveness of managerial decisions in the organization's activities
4. Information support for the process of making managerial decisions
5. Organization of the process of making managerial decisions in the enterprise's management system
6. Methods of substantiating managerial decisions in modern conditions
7. Management decisions in conditions of uncertainty and risk
8. The role of the manager in the process of making managerial decisions
9. Models of making managerial decisions in management
10. Assessing the quality of managerial decisions
11. Using the brainstorming method in developing managerial decisions
12. Applying the decision tree method in the activities of the enterprise
13. Using expert methods in making managerial decisions
14. Scenario method in strategic decision-making
15. Using SWOT analysis to substantiate managerial decisions
16. Applying PEST analysis in making managerial decisions
18. Management decisions in the field of personnel management
19. Making financial management decisions at the enterprise
20. Management decisions in the field of innovative activity
21. Making management decisions in the logistics activity of the enterprise
22. Management decisions to increase the competitiveness of the enterprise
23. Management decisions in the field of digital business transformation
24. Management decisions in the field of strategic development of the enterprise

25. Using artificial intelligence in making management decisions
26. Digital tools to support management decisions
27. Management decisions in crisis situations
28. Developing management decisions to increase the efficiency of the enterprise
29. Developing management decisions in the field of strategic management
30. Management decisions to optimize the costs of the enterprise
31. Developing management decisions to increase the profitability of the enterprise
32. Management decisions to develop human resources
33. Management decisions to increase the innovative activity of the enterprise
18. Management decisions in the field of personnel management

Non-formal education

. Non-formal education is not provided.

Literature, training materials, and information resources

Main literature

1. Negrey M.V. , Tuzhik K.K. Theory of decision-making. Textbook . Kyiv: Publishing House "Professional, 2018. 272p.
2. Decision-making theory: textbook / edited by Butka M. P. Kyiv: “Center for Educational Literature”, 2015. 360 p.
3. Pryymak V. M. Making management decisions: a manual . Kyiv: Atika , 2014. 240 p.
4. Faynzilberg O.A. Theory of decision-making: textbook / L.S. Faynzilberg , O.A. Zhukovska, V.S. Yakymchuk. Kyiv: Osvita Ukrainy, 2018. 246 p.
5. Making management decisions: a textbook / [Yu.E.Petrunya , B. V. Litovchenko , T. O. Pasichnyk and others]; ed. Yu.E. Petrunya . [3rd ed ., revised and supplemented]. Dnipropetrovsk: University of Customs and Finance, 2015. 209 p.

Grading system

The final grade for the educational component is determined by the lecturer and is based on topics, types of activities, etc., in accordance with the syllabus. It is an integrated assessment of the results of all types of student learning activities. The final grade should reflect all the grades for the different parts of the educational process, taking into account their weighting coefficients *k*:

Continuous assessment (during workshops, seminars, laboratory classes) k_1	Control works (if any), k_2	Individual assignment (if any), k_3	Final assessment (for courses with exams), k_4
0,4	0,3	0,2	0,1

The sum of the coefficients must be equal to one: $k_1 + k_2 + k_3 + k_4 = 1$. The weighting coefficients for the final assessment are decided by the course developer..
The final grade is calculated using the following formula:

$$G = C \cdot k_1 + K \cdot k_2 + I \cdot k_3 + E \cdot k_4$$

where: C – weighted average score for the continuous assessment
I – individual assignment grade
K – weighted average score for the continuous assessment
E – final assessment (exam) grade

$$C = \frac{C_1 \cdot a_1 + C_2 \cdot a_2 + \ldots + C_n \cdot a_n}{\sum_{i=1}^{n} a_i}$$

де: a_i - weighting coefficient for each workshop (seminar) or laboratory class.

$$K = \frac{K_1 \cdot b_1 + K_2 \cdot b_2 + \ldots + K_m \cdot b_m}{\sum_{i=1}^{m} b_i}$$

де: b_i - weighting coefficient for each control work.

The assessments for each component (C, K, I, etc.) are based on a 100-point scale in line with the provisions of the "Criteria and System for Assessing Knowledge and Skills, and Rating of Higher Education Students" of the National Technical University "Kharkiv Polytechnic Institute."

The final grade is finalized as the calculated value of G, rounded up to the nearest integer.

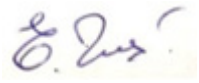
Grading scale

Total points	National	ECTS
90–100	Excellent	A
82–89	Good	B
75–81	Good	C
64–74	Satisfactory	D
60–63	Satisfactory	E
35–59	Unsatisfactory (requires additional learning)	FX
1–34	Unsatisfactory (requires repetition of the course)	F

Norms of academic integrity and course policy

Students must adhere to the Code of Ethics of Academic Relations and Integrity of NTU "KhPI": to demonstrate discipline, good manners, kindness, honesty, and responsibility. Conflict situations should be openly discussed in academic groups with a lecturer, and if it is impossible to resolve the conflict, they should be brought to the attention of the Institute's management.
Regulatory and legal documents related to the implementation of the principles of academic integrity at NTU "KhPI" are available on the website: http://blogs.kpi.kharkov.ua/v2/nv/akademichna-dobrochesnist/

Approval

Approved by	30.08.2025		Head of the department Nataliia SHMATKO
	30.08.2025		Guarantor of the educational program Olena PROKHORENKO
	30.08.2025		Guarantor of the educational program Olena Chaikova