Syllabus
Course Program

Business diagnostics

Specialty
D3 - Management

Institute
Institute of Economics, Management and International Business

Specialization

Department
Department of Management (204)

Educational program
Business Administration

Course type
Mandatory

Level of education
Second (master's level)

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

Semester
1

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 is aimed at forming students' competencies in conducting business diagnostics of all aspects of the company's activities in order to make strategic decisions to improve the efficiency of operations and strengthen market positions. The discipline ensures the acquisition of professional knowledge and skills necessary for diagnosing the state of the enterprise and substantiating recommendations for improving the efficiency of its current activities and achieving strategic goals.

Course objectives and goals

Study, generalization and systematization of the theoretical and methodological aspects of business diagnostics and its components in Ukraine, examination of the peculiarities of the production and economic activity of domestic business entities, as well as substantiation of the prerequisites and factors that have a significant impact on the internal economic mechanism of each business, generalization and systematization of knowledge in the field of mastering the skills of performing diagnostics in various directions to ensure effective business management, formation of skills in preparation and justification of specific practical measures to increase business efficiency in specific business conditions.

Format of classes

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

Competencies

GC3. Skills in using information and communication technologies
SC4. The ability to efficiently use and develop organizational resources
SC 13. The ability to assess the objective state of selected parameters in enterprise activities in relation to set goals and objectives, and to justify management decisions regarding the effective development of economic entities

Learning outcomes

LO02. To identify organizational problems and justify methods for solving them;
LO05. To plan an organization's activities from both strategic and tactical perspectives
LO13. To be able to plan and provide informational, methodological, material, financial and staffing support for an organization (unit)
LO15. To be able to assess and critically evaluate the state of the enterprise across a range of parameters and develop proposals for its improvement

Student workload

The total volume of the course is 120 hours (2 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 first year in the first 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 Basics of business diagnostics of modern enterprises 1.1 The essence, significance and basic principles of conducting business diagnostics of the enterprise. 1.2. Modern technologies of business diagnostics of the enterprise 1.3. Features of diagnostics of the enterprise at various stages of its development	2
Topic 2: Information support for diagnostics of enterprise activity. 2.1 Information sources for carrying out business diagnostics of the enterprise 2.2. Methods of search and initial processing of analytical information. 2.3Methods of searching, grouping and initial processing of analytical information	2
Topic 3: Diagnosis of the basic parameters of the enterprise and the market environment of its functioning 3.1 Analysis of legal and economic parameters of the enterprise 3.2. Study of the enterprise management system. 3.3. Environmental study of enterprise activity.	2

3.4. Evaluation of the market environment of enterprise management	
Topic 4: Diagnostics and optimization of business processes in the organization. 4.1 Formation of the idea of a process approach to business management. 4.2. Business process management strategy. 4.3. The structure of the company's business model. 4.4 Criteria for the effectiveness of the organization of business processes	2
Topic 5: Analysis of products (works, services) of the enterprise 5.1 Identification of initial parameters of specialized activity enterprises. 5.2. Evaluation of production and sales performance 5.3. Diagnostics of the quality and competitiveness of the company's products	2
Topic 6: Diagnostics of the financial and property status of the enterprise 6.1 Analysis of balance currency dynamics and its structure. 6.2. Assessment of the financial stability of the enterprise. 6.3. Analysis of liquidity.	2
Topic 7: Evaluating the effectiveness of the formation and use of the enterprise's main management resources 7.1 Research of the personnel of the enterprise. 7.2. Diagnostics of the fixed capital of the enterprise. 7.3 Study of working capital of the enterprise. 7.4. Analysis of business activity of the enterprise.	2
Topic 8: Diagnostics of the enterprise's intellectual capital 8.1 Intellectual capital of the enterprise and its features. 8.2. Measuring and evaluating the value of intellectual property. 8.3. Comprehensive diagnosis of intellectual capital.	2
Topic 9: Diagnostics of cost effectiveness of the enterprise. 9.1 Study of cost parameters and cost of production. 9.2. Identification of the critical volume of production and sales. 9.3. Diagnostics of leverage parameters at the enterprise. 9.4. Estimating the cost of the enterprise's capital	2
Topic 10: Diagnostics of the efficiency of the enterprise. 10.1 Analysis of the profitability of the enterprise 10.2 Evaluation of the effectiveness of the formation and use of the company's share capital. 10.3 Valuation of the enterprise. 10.4. Evaluation of the competitiveness of the enterprise. 10.5. Models of integral evaluation of the efficiency of the enterprise	2
Topic 11: Diagnosis of the risk of insolvency and bankruptcy of the enterprise 11.1 Diagnosis of enterprise insolvency. 11.2. Assessment of the probability of bankruptcy of the enterprise. 11.3. Identification of signs of hidden, intentional and fictitious bankruptcy.	2
Topic 12: Diagnostics and optimization of business projects 12.1 The essence of the project activity. 12.2 Management and diagnostics of business projects using models of I. Adizes. 12.3. Peculiarities of management of enterprises (firms, companies) on stage of maturity. 12.4 Comprehensive diagnosis of the enterprise management system in context of business design	2
Topic 13: Diagnostics of economic security of the enterprise 13.1 Concept, goals and functional components of economic security of the enterprise 13.2 Risk and dangers in the management decision-making system. 13.3 Identification of the exact area of operation of the enterprise.	2

13.4 Qualitative characteristics of the state of safety (danger), their scoring. 13.5 Anticrisis management and economic security of the enterprise	
Topic 14: Diagnostics of the corporate culture of the enterprise. 14.1. The essence and elements of corporate culture. 14.2. Types and models of corporate culture. 14.3. Evaluation of the corporate culture of the enterprise. 14.4. Toolkit for assessing corporate culture	2
Topic 15: Formation of management decisions based on the results of business diagnostics of the enterprise 15.1 Substantial and specific characteristics of management decisions. 15.2. Technology of development and implementation of management solutions. 15.3. Using the results of business diagnostics in strategic planning	2
Topic 16. Analytical support for business diagnostics 16.1. Information as a resource for business diagnostics : data quality requirements, sources, information barriers. 1 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 business diagnostics	2
Total hours	**32**

Workshops

If applicable

Topics for workshops/seminars	Hours	Weighting coefficients *a*
Topic 1 Basics of business diagnostics of modern enterprises	**2**	**1**
Topic 2. Diagnosis of the basic parameters of the enterprise and the market environment of its functioning	**2**	**1**
Topic 3. Diagnostics of the financial and property status of the enterprise	**2**	**1**
Topic 4. Evaluating the effectiveness of the formation and use of the enterprise's main resources	**2**	**1**
Topic 5. Diagnostics of the enterprise's intellectual capital	**2**	**1**
Topic 6. Diagnostics of cost effectiveness of the enterprise	**2**	**1**
Topic 7. Diagnostics of the efficiency of the enterprise	**2**	**1**
Topic 8 Diagnosis of the risk of insolvency and bankruptcy of the enterprise	**2**	**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		$\sum_{i=1}^{n} a_i$

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. Business Model Diagnostics and Evaluation of Business Model Sustainability	9
Topic 2. Diagnostics of Innovation Potential and Innovation Readiness of an Enterprise	9
Topic 3. Customer Satisfaction Diagnostics and Customer Experience Assessment	9
Topic 4. Corporate Reputation Diagnostics and Brand Perception Analysis	9
Topic 5. Risk Identification and Assessment in Business Diagnostics	9
Topic 6. Diagnostics of an Enterprise's Investment Attractiveness	9
Topic 7. Supply Chain Diagnostics and Assessment of Logistics Efficiency	9
Topic 8. Diagnostics of Corporate Social Responsibility and Sustainable Business Practices	9
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.

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 Business Administration Pavlo BRIN