Syllabus
Course Program

Business analysis and business valuation

Specialty
D3 – Management

Institute
Institute of Education and Science in Economics, Management and International Business

Specialization
-

Department
Management (204)

Educational program
Business administration (in English

Course type
Mandatory

Level of education
First (bachelor's level)

Form of study
Full-time,

Semester
7

Language of instruction
English

Lecturers and course developers



First name and surname

Mariia Foshchii

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PhD in Management, Associate Professor of Department of Management

Authored and co-authored over 40 scientific and methodological publications. Courses: Business analysis and business valuation, Social design, Fundamentals of fundraising, Competitiveness management, Project management

More about the lecturer on the department's website

General information

Summary

The course integrates business analysis and business valuation into a single decision-oriented framework. Students learn to diagnose the external and internal environment of an enterprise, analyze financial and operating performance, identify risks and key value drivers, forecast business performance, and estimate business value using income, market, and asset-based approaches. The course emphasizes interpretation of analytical results and their use in management decisions aimed at increasing business value.

Course objectives and goals

The course aims to develop students' ability to conduct an integrated analysis of a real enterprise, assess its financial and economic condition, identify problems and development prospects, determine value drivers, apply modern business valuation approaches, interpret and reconcile valuation results, and substantiate managerial recommendations for value creation.

Format of classes

Lectures, workshops, consultations, self-study, individual assignment (control work). Final control in the form of exam.

Competencies

SC02. The ability to analyze the results of organization activity, to compare them with the factors of the external and internal environment.
SC03. The ability to identify prospects of organization development.
SC10. The ability to work in a team and to establish interpersonal interaction in solving professional tasks.
SC16. The ability to generate business ideas, to justify the feasibility and form of their implementation as well as to present them to stakeholders.

Learning outcomes

LO 06. To show skills of search, collecting, and analysis of information, calculation of indicators to substantiate management decisions.
LO 12. To evaluate the legal, social, and economic implications of an organization's functioning.
LO 17. To conduct researches individually and/or in a group under the leadership of the leader.
LO 18. To be able to plan business activities and substantiate project proposals.

Student workload

The total volume of the course is 180 hours (6 ECTS credits): lectures – 32 hours, workshops – 32 hours, self-study – 116 hours.

Course prerequisites

To successfully complete the course, you must have knowledge and practical skills from the following courses: "Fundamentals of Entrepreneurship", "Managerial accounting", "Business modeling and planning", "Business communication", "Product management".

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

Lectures are conducted in an interactive form using multimedia technologies. Practical classes are conducted using a project approach and focus on using modern information technologies. Study materials are available to students through Microsoft Teams.

Program of the course

Academic classes

Lectures

Topics of the lectures	Hours
Topic 1. Business analysis and value-oriented management. Purpose, tasks, objects and subjects of business analysis. The role of business analysis in management decisions. Business value as an integrated result of strategic, operational and financial decisions.	2
Topic 2. Information base, stakeholders and business model analysis. Internal and external information sources. Data quality and reliability. Stakeholder analysis. Business model logic, value proposition, revenue and cost architecture. Identification and management of business requirements.	2
Topic 3. External environment and competitive position of a business. PESTEL analysis, Porter's Five Forces, market structure, industry attractiveness and competitive dynamics. SWOT analysis and identification of external opportunities and threats.	2
Topic 4. Internal environment, business processes and resource analysis.	2

Value chain and business process analysis. Assessment of resources, capabilities and competitive advantages. Identification of bottlenecks, inefficiencies and improvement potential.	
Topic 5. Financial statements and methods of business activity analysis. Balance sheet, income statement and cash flow statement as an analytical information base. Horizontal, vertical and trend analysis. Normalization and comparability of financial data.	2
Topic 6. Asset structure, business activity and operating efficiency. Property status and asset structure. Fixed and working capital efficiency. Turnover indicators, working capital cycle, resource utilization and operational performance.	2
Topic 7. Profitability, leverage and key value drivers. Profit formation and profitability indicators: ROS, ROA, ROE, ROIC, ROCE and related metrics. Financial and operating leverage. DuPont analysis. Identification of financial and operational value drivers.	2
Topic 8. Liquidity, solvency, financial stability and business risk. Liquidity and solvency ratios. Capital structure and financial stability. Bankruptcy risk and distress diagnostics. Business, financial and market risks and their impact on enterprise development.	2
Topic 9. Foundations, standards and organization of business valuation. Business and enterprise as valuation objects. Value, price and cost. Market, investment, fair and liquidation value. Purposes, principles and stages of valuation. Information requirements and valuation assignment.	2
Topic 10. Income approach: forecasting and free cash flow. Forecasting revenues, operating expenses, taxes, capital expenditures and working capital. FCFF and FCFE. Forecast period, key assumptions and financial model structure.	2
Topic 11. Cost of capital, terminal value and discounted cash flow valuation. CAPM and WACC. Cost of debt and equity. Terminal value methods. Present value calculation. Scenario and sensitivity analysis of DCF results.	2
Topic 12. Market approach to business valuation. Comparable companies and comparable transactions. Valuation multiples: P/E, EV/EBITDA, EV/Sales and other indicators. Selection of comparable and adjustments for differences.	2
Topic 13. Asset-based approach and adjusted net asset value. Identification and revaluation of assets and liabilities. Adjusted net asset value. Goodwill and non-operating assets. Scope and limitations of the asset-based approach.	2
Topic 14. Valuation of real estate, machinery and equipment. Specific features of tangible assets as valuation objects. Cost, comparative and income approaches. Depreciation, obsolescence, highest and best use, replacement and reproduction cost.	2
Topic 15. Valuation of intangible, digital and human-capital-related value drivers. Brands, trademarks, patents, software, customer relationships, databases and other intangible assets. Relief-from-royalty and excess earnings methods. Digital assets, human and organizational capital as business value drivers.	2
Topic 16. Integrated business valuation and value-based management decisions. Reconciliation of valuation approaches and formation of a value range. Valuation uncertainty, ESG factors and special situations including M&A, restructuring and distress. Preparation of valuation conclusions and recommendations for increasing business value.	2
Total hours	**32**

Workshops

Topics for workshops/seminars	Hours	Weighting coefficients *a*
Topic 1. Selection of the company and preparation of an analytical information map. Select a real operating enterprise. Define the purpose of the analysis, key stakeholders, business model, required information, sources and data limitations.	2	0,0625
Topic 2. External environment and industry analysis. Perform PESTEL and Porter's Five Forces analysis; identify market trends, competitors, opportunities and threats. Prepare a concise market and industry conclusion.	2	0,0625
Topic 3. Internal environment, value chain and business model analysis. Map the value chain or a key business process, identify resources and capabilities, formulate strengths and weaknesses, and complete an integrated SWOT analysis.	2	0,0625
Topic 4. Preparation and normalization of financial data. Collect financial statements for at least three periods, verify consistency, perform data cleaning and normalization, and prepare an analytical dataset for further calculations.	2	0,0625
Topic 5. Horizontal, vertical and trend analysis; business activity indicators. Calculate structural and dynamic indicators, asset turnover, inventory and receivables turnover, working capital cycle and operating efficiency; interpret the results.	2	0,0625
Topic 6. Profitability, leverage and value-driver analysis. Calculate profitability and return indicators, perform DuPont decomposition, assess leverage and identify the factors that have the strongest effect on business performance and value.	2	0,0625
Topic 7. Liquidity, solvency and financial stability analysis. Calculate liquidity, solvency and financial stability indicators, assess capital structure and working capital sufficiency, and formulate analytical conclusions.	2	0,0625
Topic 8. Economic diagnostics and integrated business analysis conclusion. Apply bankruptcy/distress diagnostics, summarize external, internal and financial analysis, identify key problems, risks, development prospects and value drivers.	2	0,0625
Topic 9. Valuation assignment and basis of value. Define the valuation object, purpose, valuation date, basis of value, scope, assumptions and information requirements for the selected enterprise.	2	0,0625
Topic 10. Forecasting business performance and free cash flow. Develop assumptions for revenue, expenses, taxes, investments and working capital; prepare a forecast and calculate FCFF or FCFE.	2	0,0625
Topic 11. Discount rate and terminal value. Estimate cost of equity and debt, calculate WACC, determine terminal value and justify the key valuation assumptions.	2	0,0625
Topic 12. Discounted cash flow valuation and sensitivity analysis.	2	0,0625

Build a simplified DCF model, determine enterprise/equity value, test key assumptions and prepare sensitivity and scenario tables.		
Topic 13. Market approach and valuation multiples. Select comparable companies or transactions, calculate appropriate multiples, make necessary adjustments and derive an indicated value range.	2	0,0625
Topic 14. Asset-based valuation. Prepare an adjusted net asset value calculation, identify required asset and liability adjustments and assess the role of goodwill and non-operating items.	2	0,0625
Topic 15. Valuation of selected tangible and intangible assets. Apply an appropriate valuation method to a selected real estate, equipment or intangible asset and assess its contribution to total business value.	2	0,0625
Topic 16. Reconciliation of results and value-improvement recommendations. Compare valuation results, reconcile approaches, determine a reasoned value range and prepare management recommendations aimed at improving the company's value drivers.	2	0,0625
Total hours	**32**	$\sum_{i=1}^{n} a_i$

Self-study

Self-study includes processing of materials provided in lectures and preparation for practical classes (16 h), independent study of specific issues and additional information (48 h), as well as completing of an individual control work (44 h) and preparation for tests (8 h).

Work on theoretical materials

Topics for self-study	Hours
Topic 1. Modern roles and competencies of a business analyst in value-oriented management. Professional roles, analytical thinking, communication with stakeholders and the contribution of business analysis to value creation.	3
Topic 2. Data quality, analytical information systems and evidence-based management. Criteria for reliability, relevance and comparability of business data; open data and corporate information sources.	3
Topic 3. Industry and market attractiveness in different sectors. Industry life cycle, market concentration, barriers to entry, technological changes and sector-specific benchmarks.	3
Topic 4. Business process optimization and requirements management. Methods for identifying process problems, root causes, requirements and improvement opportunities.	3
Topic 5. Advanced financial statement analysis and normalization. Accounting-policy effects, non-recurring items, normalization adjustments and analytical comparability.	3
Topic 6. Working capital management and operating efficiency. Cash conversion cycle, working capital policies, capacity utilization and operational efficiency reserves.	3
Topic 7. Value-driver trees and return decomposition.	3

Relationships among revenue growth, margins, invested capital, cost of capital and enterprise value.	
Topic 8. Business distress, risk and bankruptcy prediction. Altman, Beaver and other diagnostic approaches; limitations of distress models under uncertainty.	3
Topic 9. Professional valuation standards, ethics and valuation uncertainty. Professional requirements, documentation, assumptions, conflicts of interest and responsible communication of valuation results.	3
Topic 10. Forecasting under uncertainty. Scenario design, key assumptions, macroeconomic factors and industry-specific drivers in business forecasts.	3
Topic 11. Cost of capital and country risk. Alternative approaches to cost of equity, risk premiums, country risk and capital structure assumptions.	3
Topic 12. Comparability and market data in valuation. Selection of peer groups, normalization of multiples and limitations of market evidence.	3
Topic 13. Goodwill, non-operating assets and hidden liabilities. Economic substance of goodwill and adjustments required when applying an asset-based approach.	3
Topic 14. Valuation of specialized tangible assets. Specific valuation issues for real estate, machinery, equipment and assets with limited market evidence.	3
Topic 15. Intangible assets, digital business models and human capital. Selection of peer groups, normalization of multiples and limitations of market evidence.	3
Topic 16. Special situations in business valuation. Start-ups and high-growth companies, SMEs, cross-border valuation, M&A, restructuring, ESG factors, real options and model risk.	3
Total hours	**48**

Individual assignment (control work)

The control work is an integrated analytical project based on a real operating enterprise. It combines the tasks of business analysis and business valuation in one consistent study. Students must analyze the company's external and internal environment, business model and financial condition; identify key problems, risks and value drivers; prepare normalized historical data and a forecast; determine business value using the income approach and at least one additional valuation approach; perform sensitivity or scenario analysis; reconcile the results; and formulate managerial recommendations aimed at increasing business value.

The result must be submitted as a structured analytical report with calculation tables and appendices. The recommended structure includes: (1) company and business model profile; (2) external and internal business analysis; (3) financial and economic diagnostics for at least three periods; (4) identification of risks and value drivers; (5) forecast assumptions and free cash flow; (6) valuation by the income approach and at least one additional approach; (7) sensitivity/scenario analysis and reconciliation of results; (8) recommendations for value creation. All calculations, assumptions and data sources must be clearly explained.

Topic for individual assignment (control work)

Integrated business analysis and valuation of a selected enterprise	
Total hours	**44**

Non-formal education

Non-formal education includes professional courses/training, civic education, online education, professional internships, etc. The elements of non-formal education recommended in the syllabus can be recognized through a simplified procedure without additional validation of the results (without creation of a subject committee).

Recommended training courses, internships

1. Online course «Business Analysis Essentials»
https://e5.ua/uk/trainings/bezkoshtovnyj-onlajn-kurs-business-analysis-essentials/
2. Online course «Fundamentals of business analysis»
https://career.softserveinc.com/uk-ua/technology/course/business-analysis-fundamentals
3. Online test "Business Valuation Fundamentals Certification"
https://scienceofapps.com/certification/business-valuation/
4. Online course "Principles of Finance (BUS202)"
https://learn.saylor.org/course/bus202
5. Online course "Estimating the Cost of Equity"
https://www.open.edu/openlearn/money-business/estimating-the-cost-equity
6. Online course "Financial Management (BUS601)"
https://learn.saylor.org/course/bus601
7. Online course "Introduction to Sustainable Finance & the SDG Finance Academy"
https://sdgfinance.undp.org/courses/introduction-sustainable-finance-sdg-finance-academy

Literature, training materials, and information resources

Main literature

1. Debra Paul, James Cadle. Business Analysis. 4th Ed. / BCS Learning and Development Ltd., UK, 2020. – 439 p.
2. Ali Cox. Business Analysis For Dummies, 2nd Edition. John Wiley & Sons, Inc., Hoboken, New Jersey, 2023. – 506 p.
3. Helen Winter. The Business Analysis Handbook. Techniques to deliver better business outcomes. 2nd Ed. / Kogan Page Inc, New York, NY, 2023. – 337 p.
4. Paul Beynon-Davies. Business analysis and design : understanding innovation in organisation. Palgrave Macmillan, Cham, Switzerland, 2021. – 425 p.
5. Howard Podeswa. The Agile guide to business analysis and planning : from strategic plan to continuous value delivery. Case Study Workshops. Addison-Wesley, Boston, 2021. – 43 p.
6. Koller T., Goedhart M., Wessels D. Valuation: Measuring and Managing the Value of Companies. 7th Ed. / McKinsey & Company: John Wiley & Sons, Inc., Hoboken, New Jersey., 2020. – 899 p
7. Sinem Derindere Köseoğlu. Valuation Challenges and Solutions in Contemporary Businesses. 1st Ed. / IGI Global, 2019. - 324 p.
8. European Business Valuation Standarts. 1st Ed. / The European Group of Valuers' Associations, 2020. - 212 p.
9. Casey Karlsen, Seth Webber. A Field Guide to Business Valuation: For Owners and Leaders of Private Companies. / Business Valuation Resources, LLC, Portland, 2022. – 206 p.
10. James R. Hitchner. Financial valuation workbook: step-by-step exercises and tests to help you master financial valuation. 5th Ed. / Wiley, Hoboken, New Jersey, 2025. – 268 p.

Additional materials

1. Сидорова А. В. Бізнес – аналітика: навч. – метод. посібник / А. В. Сидорова , Д. В. Біленко, Н. В. Буркіна. – Вінниця : ДонНУ імені Василя Стуса, 2019. – 104 с.
2. Фінансова звітність підприємств: Навчально-методичний посібник / С. В. Приймак, М. Т. Костишина, Д. В. Долбнєва. – Львів: Ліга-Прес, 2016. – 268 с.
3. Інформаційні системи бізнес аналітики. Навчально наочний посібник [Електронний ресурс] / КПІ ім. Ігоря Сікорського ; уклад.: О.В.Стець. – Електрон. текст. дані (1 файл). – Київ : КПІ ім. Ігоря Сікорського, 2024. – 76 с.

4. Краснокутська Н.С., Коптєва Г.М. Оцінка бізнесу : навч. посіб. для студентів економічних спеціальностей.– Харків : НТУ «ХПІ», 2021. – 229 с.
5. Єрмоленко О. А., Лисьонкова Н. М. Оцінка вартості бізнесу: Конспект лекцій. – Харків: УкрДУЗТ, 2021. – 75 с.

Information resources

1. Official website of the State Statistics Service of Ukraine. Access mode: www.ukrstat.gov.ua
2. Official website of the Ministry of Economy of Ukraine. Access mode: www.me.gov.ua
3. Закон України «Про оцінку майна, майнових прав та професійну оціночну діяльність в Україні» № 2658-III від 12.07.2001 (чинна редакція від 01.01.2025)
4. Національний стандарт № 1 «Загальні принципи оцінки майна та майнових прав», затвердженого постановою Кабінету Міністрів України від 10 вересня 2003 р. № 1440 (із змінами, внесеними згідно з Постановою КМУ № 886 від 09.08.2022).
5. Національне Положення (стандарт) бухгалтерського обліку 1 «Загальні вимоги до фінансової звітності»: Затв. наказом Міністерства фінансів України від 7 лютого 2013 р. № 73 і зареєстровано Міністерством юстиції України 28 лютого 2013 р. за № 336/22868 (із змінами та доповненнями). Режим доступу: https://zakon.rada.gov.ua/laws/show/z0336-13#Text
6. Національне положення (стандарт) бухгалтерського обліку 25 „Спрощена фінансова звітність‖: Затв. наказом Міністерства фінансів України від 25 лютого 2000 р. № 96 39 (із змінами та доповненнями). Режим доступу: https://zakon.rada.gov.ua/laws/show/z0161-00

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	0,1	0,4	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	31.08.2026		Head of the department Nataliia SHMATKO
	31.08.2026		Guarantor of the educational program Olena PROKHORENKO