

# FUNDAMENTALS OF BUSINESS PLANNING

## SYLLABUS

<b>Code and name of specialty</b>	121 Software Engineering 122 Computer Science 126 Information Systems and Technologies	<b>Institute / faculty</b>	Faculty of Computer Science and Software Engineering
<b>Program name</b>	Software Engineering Computer Science and Intelligent Systems Information Systems Software	<b>Department</b>	Software Engineering and Management Information Technologies
<b>Type of program</b>	Educational and Professional	<b>Language of instruction</b>	Ukrainian, English

### LECTURER

**Lobach Olena Volodymyrivna**

Elena.Lobach@khpi.edu.ua



**Ph.D., Associate professor, Associate Professor of Strategic Management department. Number of scientific and educational publications - more than 45.** (<https://scholar.google.com/citations?user=VKuoi4gAAAAJ&hl=en>, <https://www.scopus.com/authid/detail.uri?authorId=57203001952>, <https://orcid.org/0000-0001-7494-9997>).

**Teaching courses:** : "Methodology and methods of project management", "Quality management in projects", "Management of object competitiveness", "Project management economics", "System engineering", "Stack of .NET technologies", "Quality and testing of software", "Information Technology Development and Reengineering Project Management"

### GENERAL DESCRIPTION OF THE COURSE

<b>Summary</b>	<p>The discipline "Fundamentals of Business Planning" is a selective discipline from the profiled package of disciplines 02 "Software Development and Startup" in specialties 121 "Software Engineering", 122 "Computer Science" and 126 "Information Systems and Technologies". It is taught in the sixth semester in the amount of 90 hours (3 ECTS credits), in particular: lectures - 32 hours, laboratory - 16 hours, independent work - 42 hours. The course includes two content modules and two modular tests. The discipline ends with a test.</p> <p>The subject of study of the discipline are the basic principles and approaches to planning; sources and methods of developing business ideas; business planning methods, procedures and technologies and information technologies used for business modeling and evaluation of business projects; acquisition of skills of formulation and presentation of business ideas, market analysis, business plan development.</p>						
<b>Course objectives</b>	The purpose of teaching the discipline is to teach students majoring in 121 "Software Engineering", 122 "Computer Science" and 126 "Information Systems and Technologies", methods, procedures and technologies of business planning						
<b>Summary</b>	Lectures, laboratory work, consultations. Final assessment - test.						
<b>Course objectives</b>	6						
<b>Student workload (credits) / Type of course</b> (required / optional)	3 / Optional	<b>Lectures (hours)</b>	32	<b>Laboratory classes (hours)</b>	16	<b>Independent work (hours)</b>	42

**Program  
competences**

- 121-GC01. Ability to abstract thinking, analysis and synthesis.
- 121-GC 02. Ability to apply knowledge in practical situations.
- 121-GC05. Ability to learn and master modern knowledge.
- 121-GC06. Ability to search, process and analyze information from various sources.
- 121-GC07. Ability to work in a team.
- 121-PC21. Ability to assess and take into account economic, social, technological and environmental factors affecting the sphere of professional activity.
- 122-GC1. Ability to abstract thinking, analysis and synthesis.
- 122-GC2. Ability to apply knowledge in practical situations.
- 122-GC3. Knowledge and understanding of the subject area and understanding of professional activity.
- 122-GC6. Ability to learn and master modern knowledge.
- 122-GC7. Ability to search, process and analyze information from various sources.
- 122-GC8. Ability to generate new ideas (creativity).
- 122-GC9. Ability to work in a team.
- 122-GC10. Ability to be critical and self-critical.
- 122-GC11. Ability to make informed decisions.
- 122-GC12. Ability to evaluate and ensure the quality of work performed.
- 122-GC14. The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.
- 122-PC10. Ability to apply methodologies, technologies and tools to manage the life cycle processes of information and software systems, information technology products and services in accordance with customer requirements.
- 126-GC1. Ability to abstract thinking, analysis and synthesis.
- 126-GC2. Ability to apply knowledge in practical situations.
- 126-GC3. Ability to understand the subject area and professional activity.
- 126-GC5. Ability to learn and master modern knowledge.
- 126-GC6. Ability to search, process and summarize information from various sources.
- 126-GC7. Ability to develop and manage projects.
- 126-GC8. Ability to assess and ensure the quality of work performed.
- 126-PC1. Ability to analyze the object of design or operation and its subject area.
- 126-PC9. Ability to develop business solutions and evaluate new technological proposals.
- 126-PC12. Ability to manage and use modern information and communication systems and technologies (including those based on the use of the Internet).
- 126-PC13. Ability to perform computational experiments, compare the results of experimental data and solutions.
- 126-PC14. Ability to form new competitive ideas and implement them in projects (startups).

**Learning outcomes**

**Teaching and learning methods**

**Forms of assessment  
(continuous assessment CAS, final assessment FAS)**

121-PLO22. Know and be able to apply methods and tools of project management.

121-PLO24. Be able to calculate the economic efficiency of software systems.

122-PLO11. Have the skills to manage the life cycle of software, products and services of information technology in accordance with the requirements and restrictions of the customer, be able to develop project documentation (feasibility study, terms of reference, business plan, agreement, contract, contract).

126-PLO11. Demonstrate the ability to develop a feasibility study for the development of information systems and technologies and be able to assess the economic efficiency of their implementation.

Interactive lectures with presentations, discussions, laboratory classes, teamwork, case method, student feedback method, problem-based learning

Written individual assignments for laboratory works (CAS), assessment of knowledge in laboratory classes (CAS), express surveys (CAS), online tests (CAS), final/semester control in the form of a semester test, according to the schedule of the educational process (FAS)

### ASSESSMENT AND GRADING

Range s of points corres pondi ng to grades	core (points) for all types of learning activities	ECTS grading scale	The national grading scale	Allocation of grade points
	90-100	A	excellent	
	82-89	B	good	
	74-81	C		
	64-73	D	satisfactory	
	60-63	E		
	35-59	FX	Unsatisfactory (with the exam retake option)	
	0-34	F	Unsatisfactory (with mandatory repetition of the course)	

**100% final evaluation** in the form of test (30%) and current assessment (70%).  
**30% Final test:** according to the schedule of the educational process  
**70% Continuous assessment:**

- 40% assessment of tasks in laboratory classes;
- 30% intermediate control (2 modular control works)

**Course policy** Follow the rules of the internal regulations of the university. Take an active part in the learning process. Students are required to attend classes according to schedule and adhere to ethics of conduct. In the absence of students will need to complete all tasks to compensate for missed classes. Performing laboratory work requires prior preparation and advance processing of all necessary materials. Written assignments must be submitted by the deadline.

### COURSE STRUCTURE AND CONTENT

Topic 1	Topic 2	Laboratory class 1	Individual work
Planning as a business management tool	Methodology and organization of planning.	Development of a business development plan. Application of different types of planning and types of plans	To study the application of planning practice in Ukrainian and European business
			Analyze the problems of applying business planning in Ukrainian enterprises

<b>Topic 3</b>	Strategic planning and business plan	<b>Laboratory class 2</b>	Methods of planning and forecasting. MS Project software.	Explore the role and importance of business planning for small and medium businesses
<b>Topic 4</b>	Information support of planning			To study the application of forecasting and simulation methods in planning
<b>Topic 5</b>	The concept of business ideas, sources and methods of business idea development	<b>Laboratory class 3</b>	Development of a business idea and ways to present it. Development of a plan for the creation of a business plan in MS Project	To study the application of Gordon's methods and the "questionnaire" to develop a business idea
<b>Topic 6</b>	The main stages of business plan development. Requirements for the structure and content of the business plan			To study the concept of business model and its main elements
<b>Topic 7</b>	Business description. Tools and methods. Strategic analysis of the environment	<b>Laboratory class 4</b>	Strategic analysis of the environment. Development of a business plan in the Project Expert program. Filling in the modules "Product List", "Environment", "Company"	Examine the top-down and bottom-up approaches to identify the company's competencies
<b>Topic 8</b>	Description of the market and its target segments. Competitors analysis. Determining the demand for products / services			Explore different approaches to assess market capacity
<b>Topic 9</b>	Development of a marketing plan. Sales forecasting methods	<b>Laboratory class 5</b>	Development of a calendar plan for the selected project. Modules "List of assets", "List of resources". Development of a production plan. Modules "Materials and components"	Study and compile a marketing program for the selected product
<b>Topic 10</b>	Development of a production plan. Production process. Production costs			Explore operational competitive advantages through value chain analysis
<b>Topic 11</b>	Development of an organizational plan. The main forms of ownership	<b>Laboratory class 6</b>	Development of a staff plan. Development of a financial plan. Modules "Total costs"	Examine the issues of personnel policy and staff development
<b>Topic 12</b>	Development of a financial plan			To study what activities of the enterprise affect the formation of cash flow
<b>Topic 13</b>	The main economic indicators of the business environment	<b>Laboratory class 7</b>	Formation of financial statements. Modules "Profits and losses", "Balance", Break-even analysis	Examine the types of taxes and existing tax systems
<b>Topic 14</b>	Methods of project analysis and evaluation			Examine the advantages and disadvantages of the method based on the calculation of net present value
<b>Topic 15</b>	Risk analysis and assessment	<b>Laboratory class 8</b>	Break-even analysis. Sensitivity analysis. Design and presentation of a business plan	Learn methods of risk insurance
<b>Topic 16</b>	Modern information technology in business planning			To study the application of modern information technologies in business planning at Ukrainian enterprises

**RECOMMENDED READING**

**Compulsory**

1. Dolzhansky, I. Z., & Zagorna, T. O. (2009). Business plan: technology development: textbook. manual / MEGI. 2nd ed. Kyiv: Ed lit. ceter, 384 p.
2. Vasylytsiv, T. G. [etc.] (2013). Business planning: textbook. manual. Kyiv: Knowledge, 207 p.
- 3 Savchenko, O. I., Nesterenko, R. O., Poberezhny, R. O. (2015). Innovative entrepreneurship and business planning: teaching method. manual / ed. O. I. Savchenko ; NTU "KhPI". Kharkiv: Generous estate plus, 160 p.
- 4 Volynchuk, Yu. V. [etc.] (2018). Entrepreneurship and trade : textbook. manual / head ed.: L. L. Kovalska, I. V. Kryvovyazyuk; LNTU. Kyiv: Condor, 620 p.
- 5 Ilchuk, P.G. [etc.] (2019). Business planning and project management: textbook. manual / NU "LP", LLC "IKEY HOLDING". Lviv: New World - 2000, 216 p.: fig., table. (Higher education in Ukraine).
- 6 Grinchenko, M. A. et al. (2003). Methodical instructions for laboratory work on the course "Development of projects, plans and programs for the development of socio-economic facilities" for students majoring in 8.000003. project management. / NTU "KhPI". Kharkiv, 28 p.

**Recommended**

1. Program - Project Expert 6.0. [Electronic resource]. Access mode: [https://www.studmed.ru/programma-project-expert-60\\_64e806a.html](https://www.studmed.ru/programma-project-expert-60_64e806a.html)
2. Shapiro, L. D. Methodical guide for drawing up business plans using the Project Expert software product. [Electronic resource]. Access mode: <https://www.twirpx.com/file/35975/>

**Academic integrity**

Students must adhere to the Code of Ethics of Academic Relations and Integrity of NTU "KhPI": to show discipline, politeness, friendliness, honesty, responsibility

The content of this syllabus is consistent with the course program.