APPROVED:
Dean of SAF, Baikal International Business School
(institute)
_____ N.B. Grosheva
April 14, 2025

Syllabus

Discipline Б1.В.18 Management Accounting and Budgeting

Major 27.03.05 Innovatics

Specialization: Management of Innovative and IT Projects and Products

University Degree: Bachelor

Full time

Approved by the Academic and
Methodological Council of Baikal
International Business School (Institute)
Protocol № 4 of March 26, 2025

Chairperson   V.M. Maksimova

Recommended by Department of Strategic and
Financial Management
Protocol № 9 of March 21, 2025

Department Chair   N.B. Grosheva

Irkutsk   2025

Contents

I. Discipline Goal and Objectives

Goal:
To provide students with knowledge, skills, and understanding in the field of modern management accounting and budgeting, including in the management of innovative and IT products;
To introduce modern concepts and methodologies of cost accounting and costing;
To develop skills in forecasting expenses and revenues and formulating development strategies, including for a series of innovative and IT products;
To master modern approaches to the planning, formation, control, and analysis of budgets.

Objectives:

· To develop the ability to create business plans.
· To gain practical skills in constructing calculation and forecast for expenses and revenues.
· To develop the ability to formulate a development strategy and monitor its implementation.
· To acquire theoretical knowledge in the field of budgeting necessary for effective management under conditions of uncertainty.

II. PLACE OF THE DISCIPLINE IN THE CPEP STRUCTURE

The academic discipline "Б1.В.18 Management Accounting and Budgeting" belongs to the elective part of the Bachelor's program in 27.03.05 Innovatics, specialization "Management of Innovative and IT Projects and Products".

Prerequisites for studying this discipline are the knowledge, skills, and competencies formed by the following preceding courses: Accounting, Financial Infrastructure of Business.

The list of subsequent courses for which the knowledge, skills, and competencies formed by this discipline are required: Strategic Management.

III. REQUIREMENTS FOR THE DISCIPLINE LEARNING OUTCOMES

The process of mastering the discipline is aimed at developing the following competencies in accordance with the Federal State Educational Standard of Higher Education for the major 27.03.05 Innovatics, specialization "Management of Innovative and IT Projects and Products"

List of Planned Learning Outcomes for the Discipline, Mapped to Competency Achievement Indicators

Competency	Competency Achievement Indicator	Learning outcomes
UC 1 Ability to develop, coordinate, and monitor the implementation of business plans, pricing policies, and development strategies for a series of	CAI UC-1.2 Demonstrates the ability to develop business plans	Proficiency in developing business plans

innovative and IT products		
	4	
	CAI UC-1.3: Possesses skills in constructing calculations and forecasts for expenses and revenues of a series of IT Projects and innovative products; development strategy for a series of IT Projects and innovative products and monitoring its implementation	Proficiency in: · constructing calculations and forecasts for expenses and revenues of a series of IT Projects and innovative products; · developing a development strategy for a series of IT Projects and innovative products and monitoring its implementation.
UC 2 Ability to manage the budget for a series of IT Projects and innovative products	CAI UC 2.1: Knows budgeting theory	Proficiency in: · general theoretical knowledge in the field of budgeting; · skills in reading accounting and financial documents with an understanding of their impact on the budget; · skills in analyzing financial indicators and identifying trends; · tools for systematizing information and working with legal and financial information systems.

IV. DISCIPLINE CONTENTS AND STRUCTURE

Discipline scope is 4 credits, 144 hrs.
including– formative assessment 34 hrs
The curriculum does not provide for practical training hours.
Formative assessment: 7nd semester - examination**.**

4.1. Discipline Content, Structured by Topics, with Indicated Types of Classes and Allocated Academic Hours

№	Discipline Section/ theme	Semester	Total hrs	Types of educational activities, including sef-study, practical sessions, and workload (in hrs)				Formative Assessment Formats; Summative Assessment Format
				Teacher Contact Hrs			Self-Study	
				Lectures	Practical Sessions	Consultations, Self-Study Monitoring, Summative Assessment		
1	2	3	4	5	6	7	8	9
1	Introduction to Management Accounting	7	14	4	4		6	Oral questioning
2	Costs	7	19	6	6	1	6	Report
3	Cost Accounting for the Development of innovative and IT products	7	21	6	6	1	8	Case-study
4	Resource Utilization in innovative and IT products	7	14	4	4		6	Oral questioning
5	Business Planning for a Series innovative and IT products	7	14	4	4		6	Oral questioning
6	Budgeting and Financial Planning for innovative and IT products	7	20	6	6		8	Oral questioning
7	Performance Analysis	7	15	4	4	1	6	Case-study
8	Interm Assessment	7	27			10	17	Examination
	Total: 7nd semester		144	34	34	13	63	

4.2. Plan for Out-of-Class Student Self-Study of the Discipline

Semester	Section, themes	Self-Study			Assessment Tool	Self-Study educational and methodological support
		Type of Self-study	Deadlines	Load (hr.)		
7	Introduction to Management Accounting	Oral questioning preparation: Working with Electronic Materials, Internet.	1-2 week	6	Oral questioning	Management Accounting: Textbook and Workbook for Universities
7	Costs	Working with Electronic Materials, Internet. Preparation of the presentation	3-4 week	6	Report	Dmitrieva, I. M. Accounting with the Fundamentals of IFRS
7	Cost Accounting for the Development of innovative and IT products	Working with Electronic Materials, Internet.	5-7 week	8	Case-study	Voronova, E. Yu. Management Accounting: Textbook for Universities
7	Resource Utilization in innovative and IT products	Oral questioning preparation: Working with Electronic Materials, Internet.	8-9 week	6	Oral questioning	Glushchenko, A. V. Strategic Accounting: Textbook and Workbook for Universities
7	Business Planning for a Series innovative and IT products	Oral questioning preparation: Working with Electronic Materials, Internet.	10-11 week	6	Oral questioning	Management Accounting: Textbook and Workbook for Universities
7	Budgeting and Financial Planning for innovative and IT products	Oral questioning preparation: Working with Electronic Materials, Internet.	12-14 week	8	Oral questioning	Shlyago, N. N. Controlling: Textbook and Workbook for Universities Kaverina O.D. Management Accounting: Textbook and Workbook for Universities

Semester	Section, themes	Self-Study			Assessment Tool	Self-Study educational and methodological support
		Type of Self-study	Deadlines	Load (hr.)		
7	Performance Analysis	Working with Electronic Materials, Internet.	15-16 week	6	Case-study	Shlyago, N. N. Controlling: Textbook and Workbook for Universities
Total self-study load (hr)				46		
Including the amount of independent work using e-learning and distance educational technologies (hrs)				–		

4.3. Content of Educational Material

№	Section	Topics
1.	Introduction to Management Accounting	**Topic 1.** Introduction to Management Accounting. Definition. Management Accounting Systems. Historical Approaches to the Formation of Management Accounting Concepts. Modern Accounting Concepts. **Topic 2.** Management Accounting. Management functions implemented in management accounting. Accounting systems. Comparison of financial and management accounting. Requirements for accounting organization. Management reporting.
2.	Costs	**Topic 3.** Costs. Definition. Expenses, Costs, Expenditures. Systems for accounting and managing costs. **Topic 4.** Classification of Costs According to the Main Areas of Management Accounting. Direct and indirect costs. Fixed and variable costs. Marginal costs. Average costs. Total costs. Simple and complex costs. Differential costs. Sunk costs. Productive (efficient) and non-productive (inefficient) costs. Opportunity costs. Controllable and uncontrollable costs. Economic elements of costs. Specifics of costs for innovative and IT products.
3.	Cost Accounting for the Development of innovative and IT products	**Topic 5.** Types of Cost of Production and Cost Accounting Methods. In relation to the technological process. Based on the completeness of cost inclusion in the cost of production. Based on the method of cost valuation. Traditional methods. Process costing, batch costing, job-order costing. Based on actual costs. Standard costing method. Standard-cost method. Direct costing. Full absorption costing method. Non-traditional methods. Throughput accounting. **Topic 6.** Methods for Allocating Indirect Costs. Volume-based method. Activity-Based Costing (ABC) method. Activity-Based Management (ABM) method. Simplified methods. Application of indirect cost allocation methods for innovative and IT products **Topic 7.** Other Allocation Methods for Managing Cost for innovative and IT products. Target costing. Product life cycle accounting. **Topic 8.** Costing. Objectives of costing. Types of cost estimates. Basic principles of costing organization. Influence of the costing method on the amount of financial results.
4.	Accounting for mixed costs in the development of innovative and IT products.	**Topic 9.** Methods for Separating Costs of innovative and IT products. Separating mixed costs into fixed and variable. High-low method. Scattergraph method. Least squares method. **Topic 10.** Linear and Non-linear Cost Behavior. Linear and non-linear costs of innovative and IT products. Non-linear costs at the relevant level.

		Topic 11. Cost Behavior Analysis. Cost behavior analysis for innovative and IT products. Cost-Volume-Profit (CVP) analysis. Break-even point.
5.	Resource management for the development of innovative and IT products.	**Topic 12**. Resource Management Throughout the Life Cycle of innovative and IT products. Key resources for innovative and IT projects. **Topic 13**. Production Capacity for innovative and IT products. Types of production capacity. Planning and accounting for capacity utilization. Optimal capacity utilization. Product mix selection under resource constraints.
6.	Management accounting of procurement operations in the production of innovative and IT products.	**Topic 14.** Tasks. Approaches to Managing Inventory. Types of logistics systems. Classification of inventory in innovation and IT activities. Methods of write-off.
7.	Business planning for innovative and IT products.	**Topic 15.** Concept, Types, and Forms of Acquiring Innovations. Classification of innovations. The innovation process. An innovation project as a form of innovation management. Business planning for a series of innovative and IT products.
8.	Sales management accounting.	**Topic 16**. Management Accounting for Sales. Accounting for product revenue. Sales profitability. **Topic 17.** Cost-Based Pricing. Pricing of innovative and IT products.
9.	Budgeting and financial planning.	**Topic 18**. Fundamentals of Budgeting and Financial Planning. Essence, goals, principles. Role in the management system of an innovative and IT company. The budgeting process. Causes of ineffective budgeting. **Topic 19**. Types, Composition, and Structure of Budgets. Operating budgets: composition, structure. Financial budgets: composition, structure. Coordination of all budgets. Budget execution. Cash flow budget. Income and expenditure budget. Forecast balance sheet. Features of constructing operating budgets. **Topic 20**. Overview of Modern Software Tools for Automating the Budgeting System.
10.	Performance analysis and management reporting.	**Topic 21**. Variance Analysis of Actual and Planned Values. Systems of indicators. **Topic 22**. Key Performance Indicators for innovative and IT products. Concepts of efficiency, effectiveness and productivity. Performance indicators.

4.3.1. List of sessions and laboratory work

№	Theme Number	Seminars, practical and laboratory work	Load (hr.)		Assessment Tools	Developed Competencies (indicators)
			Total hrs	Including practical sessions		
1	2	3	4	5	6	7
1	1	A comparison of financial and management accounting.	4	–	Oral questioning	CAI UC 1.3
2	2	Fixed and variable costs for innovative and IT products.	6	–	report	CAI UC 1.3
3	3	Selection of costing methods based on their impact on financial results.	4	–	Case-study	CAI UC 1.3
4	3	Cost-Volume-Profit (CVP) analysis as applied to innovative and IT products.	2	–	Oral questioning	CAI UC 1.3
5	4	Capacity planning for the development of innovative and IT products.	4	–	Oral questioning	CAI UC 1.2
6	5	Cost-based pricing for innovative and IT products.	4	–	Oral questioning	CAI UC 1.2
7	6	Types, components, and structure of budgets.	6	–	Case-study	CAI UC 2.1
8	7	Financial control: financial performance indicators.	4	–	Oral questioning	CAI UC 1.3
		Total hrs:	34			

4.3.2. List of topics (questions) assigned for independent work as part of student self-study

№	Theme	Assignment	Developed Competencies (indicators)	CAI
1	2	3	4	5
1	Accounting systems.	Explore information systems used for data processing. Analyze the financial reporting of public companies in the innovation and IT sectors to determine which accounting systems they use.	UC 1	CAI UC 1.3
2	Economic elements of costs.	Analyze economic and accounting profit. Understand the difference.	UC 1	CAI UC 1.3
3	ABCM method. SMA method.	Study these methods, find examples of their application for innovative and IT products.	UC 1	CAI UC 1.3

4	Influence of costing methods on the value of financial results.	Calculate a company's financial results depending on the costing methods applied.	UC 1	CAI UC 1.3
5	Methods of cost separation. Separating mixed costs into fixed and variable components. High-low method. Variance method. Least squares method.	Analyzing the applicability of different methods for innovative and IT products.	UC 1	CAI UC 1.3
6	Management accounting of procurement activities.	Analysis of inventory management methods for innovative and IT products.	UC 1	CAI UC 1.3
7	Business planning for innovative and IT products.	Analyze the specifics of developing business plans for innovative and IT products. Research the main challenges in implementing such business plans.	UC 1	CAI UC 1.2
8	Overview of modern software tools for budgeting system automation.	Analyze software tools for automating budgeting systems. Determine the advantages of various types of software products.	UC 2	CAI UC 2.1
9	Control tools.	Investigate which control tools are used in management accounting. Independently perform a control check on the execution of documents.	UC 1	CAI UC 1.3

4.4. Guidelines for Organizing Students' Self-Study

Objective: to determine the role and place of students' independent work in the educational process; to specify its levels, forms and types; to generalize methods and techniques for completing specific types of academic assignments; to explain the assessment criteria.

	Academic assignments	Forms and types	Forms of control
1.	Preparation for a practical lesson	Study of the material involving working through educational literature.	Practical session
2.	Material studying	Study of the material assigned for self-study.	Test, assessment
3.	Preparation for an oral informational message	Search (selection) and review of literature and electronic information	Practical session, presentation showcase.

		sources on an individually assigned problem.	
4.	Preparation of a written informational report.	Performance of material collection tasks	Script writing session
5.	Essay preparation,including source study and text writing	Material collection for an essay	Practical lesson
6.	Compiling a summary generalizing table on the topic	Literature review	Practical lesson
7.	Graphical representation of the studied material (creating schemes, illustrations, drawings, graphs, diagrams)	Material collection using Power Point, Canva, etc. platforms.	Practical lesson
8.	Test preparation	Study of the material assigned for self-study.	Practical lesson
9.	Completing group and individual tasks	Study of the material assigned for self-study.	Practical lesson

V. EDUCATIONAL, METHODOLOGICAL, AND INFORMATION SUPPORT FOR THE DISCIPLINE

a) Main literature

1. Управленческий учет : учебник и практикум для среднего профессионального образования / О. Л. Островская, М. А. Осипов, А. Е. Карлик, Е. Б. Абдалова. — 3-е изд., перераб. и доп. — Москва : Издательство Юрайт, 2025. — 435 с. — (Профессиональное образование). — ISBN 978-5-534-18021-3. — Текст : электронный // Образовательная платформа Юрайт [сайт]— URL: https://urait.ru/bcode/561344

2. Воронова Е. Ю. Бухгалтерский управленческий учет : учебник для среднего профессионального образования / Е. Ю. Воронова. — 3-е изд., перераб. и доп. — Москва : Издательство Юрайт, 2025. — 428 с. — (Профессиональное образование). — ISBN 978-5-534-01460-0. — Текст : электронный // Образовательная платформа Юрайт [сайт]. — URL: https://urait.ru/bcode/561964

3. Шляго Н. Н. Контроллинг : учебник и практикум для вузов / Н. Н. Шляго. — Москва : Издательство Юрайт, 2025. — 277 с. — (Высшее образование). — ISBN 978-5-9916-9030-0. — Текст : электронный // Образовательная платформа Юрайт [сайт] — URL: https://urait.ru/bcode/561807

4. *Глущенко, А. В.* Стратегический учет : учебник и практикум для вузов / А. В. Глущенко, И. В. Яркова. — Москва : Издательство Юрайт, 2025. — 240 с. — (Высшее образование). — ISBN 978-5-534-05061-5. — Текст : электронный // Образовательная платформа Юрайт [сайт].— URL: https://urait.ru/bcode/563836

5. *Дмитриева И. М.* Бухгалтерский учет с основами МСФО : учебник и практикум для вузов / И. М. Дмитриева. — 8-е изд., перераб. и доп. — Москва : Издательство Юрайт, 2025. — 287 с. — (Высшее образование). — ISBN 978-5-534-21520-5. —

Текст : электронный // Образовательная платформа Юрайт [сайт]. — URL: https://urait.ru/bcode/575019

6. Производственный менеджмент. Теория и практика : учебник для вузов / под редакцией И. Н. Иванова. — 2-е изд. — Москва : Издательство Юрайт, 2025. — 546 с. — (Высшее образование). — ISBN 978-5-534-16517-3. — Текст : электронный // Образовательная платформа Юрайт [сайт].
- URL: https://urait.ru/bcode/568521.

7. *Поляков Н. А.* Управление инновационными проектами : учебник и практикум для вузов / Н. А. Поляков, О. В. Мотовилов, Н. В. Лукашов. — 2-е изд., испр. и доп. — Москва : Издательство Юрайт, 2025. — 384 с. — (Высшее образование). — ISBN 978-5-534-15534-1. — Текст : электронный // Образовательная платформа Юрайт [сайт]. URL: https://urait.ru/bcode/560561/

8. Инновационный менеджмент : учебник для вузов / под общей редакцией Л. П. Гончаренко. — 2-е изд., перераб. и доп. — Москва : Издательство Юрайт, 2025. — 479 с. — (Высшее образование). — ISBN 978-5-534-17994-1. — Текст : электронный // Образовательная платформа Юрайт [сайт].— URL: https://urait.ru/bcode/560294

The following regulatory documents are also recommended:

1. Федеральный закон "Об образовании в Российской Федерации" № 273-ФЗ от 29 декабря 2012 года. http://zakon-ob-obrazovanii.ru

2. Федеральный закон о науке и государственной научно-технической политике от 23 августа 1996 № 127-ФЗ (ред. от 31.07.2020). http://pravo.gov.ru/proxy/ips/?docbody=&nd=102043112

3. Гражданский кодекс РФ. Часть 4. Раздел VII. Права на результаты интеллектуальной деятельности и средства индивидуализации. https://www.consultant.ru/document/cons_doc_LAW_64629/

4. Федеральный закон об информации, информационных технологиях и о защите информации от 27 июля 2006 г. № 149-ФЗ. http://pravo.gov.ru/proxy/ips/?docbody&nd=102108264
https://vak.minobrnauki.gov.ru/uploader/loader?type=34&name=3349238001&f=2942

5. Стратегия научно-технологического развития Российской Федерации (утверждена Указом Президента РФ от 01.12.2016 г. № 642) http://static.kremlin.ru/media/acts/files/0001201612010007.pdf

6. Стандарт отчета о научно-исследовательской работе. ГОСТ 7.32-2017. Введен в действие с 01.07.2018. https://isu.ru/ru/science/standarts/docs/gost_7.32-2017.pdf

b) databases, search and reference systems, and information systems

1. ЭБС ЭЧЗ «Библиотех». Государственный контракт № 019 от 22.02.2011 г. ООО «Библиотех». Лицензионное соглашение № 31 от 22.02.2011 г. Адрес доступа: https://isu.bibliotech.ru/ Срок действия: с 22.11.2011 г. бессрочный.

2. ЭБС «Руконт» Контракт № 98 от 13.11.2020 г.; Акт № 6К-5415 от 14.11.20 г. Срок действия по 13.11.2021г. доступ: http://rucont.ru/

3. ЭБС «Издательство Лань». ООО «Издательство Лань». Информационное письмо № 128 от 09.10.2017 г. Срок действия: бессрочный. Адрес доступа: http://e.lanbook.com/

4. ЭБС «Национальный цифровой ресурс «Руконт». ЦКБ «Бибком». Контракт № 04-Е-0343 от 12.11.2021 г. Адрес доступа: http://rucont.ru/

5. ЭБС «Айбукс.ру/ibooks.ru». ООО «Айбукс». Контракт № 04-Е-0344 от 12.11.2021 г.; Акт от 14.11.2021 г. Адрес доступа: http://ibooks.ru

6. Электронно-библиотечная система «ЭБС Юрайт». ООО «Электронное издательство Юрайт». Контракт № 04-Е-0258 от 20.09.2021г. Адрес доступа: https://urait.ru/

VI.   MATERIAL AND TECHNICAL SUPPORT FOR THE DISCIPLINE
6.1. Educational and Laboratory Equipment

Name of Specialized Premises and Self-Study Premises	Equipment of Specialized Premises and Self-Study Premises	List of Licensed Software. Details of Supporting Document
Lecture hall for lecture-type classes	The hall is equipped with specialized (educational) furniture for 48 students and technical teaching aids for presenting educational information to a large audience. The demonstration equipment set includes: PC HP Elite 8300 SFF i5 3470/4Gb/1Tb/DVD RV/kb/m/DOS/Sole noid Lock and Hood Sensor (RUS) Monitor Viewsonic TFT 20" VA2014WM glossy-black 5ms 20 00:1 250cd M/M Projector Epson EB-1830 Active speakers Genius SP-S110 black Video signal splitter Aten VS92A 2-port VGA It is equipped with educational visual aids and electronic presentations that provide thematic illustrations for all topics specified in the discipline's syllabus.	BASE INSTALLATION KIT FOR: Office 2007 Russian OpenLicensePack NoLevel AcademicEdition – contract with CJSC "Softline Trade" Tr026664 dated 17.05.2007 Project Standard 2007, Access 2007 - Microsoft DreamSpark Premium Electronic Software Delivery academic collaboration programs. – contract with CJSC "Softline Trade" Tr000023480 dated 19.05.2015 Windows operating systems under OEM pre-installation licensing programs, Microsoft MSDN AA academic collaboration programs. – contract with CJSC "Softline Trade" Tr017431 dated 15.05.2008 Windows operating systems under OEM pre-installation licensing programs, Microsoft DreamSpark Premium Electronic Software Delivery academic collaboration programs. – contract with CJSC "Softline Trade" Tr000031723 dated 05.08.2015 Antivirus software - Software rights for dr.Web Server Security comprehensive protection for 120 PCs (1 license per year) migration with additional purchase (LBW-BC-12M-120:119-C4) – contract with CJSC "Softline Trade" 13982/MOS2957 dated 22.01.2016 Archivers WinRAR: 3.x: Standard Licence - for legal entities, 100-199 licenses – contract with CJSC "Softline Trade" No. 15422/IRK11 dated 05.02.2010 Network client part: Software rights for Windows Server CAL 2012 Russian OLP NL Academic Edition Device CAL, 120 licenses – contract with CJSC "Softline Trade" 13512/MOS2957 dated 29.10.2015 Firewall, Proxy functionality - Software usage rights for Traffic Inspector GOLD discounted – contract with CJSC "Softline Trade" Tr044356 dated 27.08.2013 Software usage rights for Traffic Inspector GOLD Special renewal for 1 year – contract with CJSC "Softline Trade" Tr000112196 dated 29.09.2016
Room for seminar-type classes	The room is equipped with specialized (educational)	BASE INSTALLATION KIT FOR: Office 2007 Russian OpenLicensePack NoLevel AcademicEdition – contract with CJSC "Softline Trade"

	furniture for 48 students and technical teaching aids for presenting educational information to a large audience. The demonstration equipment set includes: 1. HP Elite 8300 SFF PC (i5 3470/4GB/1TB/ DVDRV/keyboar d/mouse/DOS/So lenoid Lock and Hood Sensor (RUS)) 2. Viewsonic TFT 20" VA2014WM glossy-black monitor (5ms, 20:1 contrast ratio, 250 cd/m², M/M) 3. Epson EB-1830 projector 4. Genius SP-S110 black active speakers 5. Aten VS92A 2-port VGA video signal splitter	Tr026664 dated 17.05.2007 Project Standard 2007, Access 2007 - Microsoft DreamSpark Premium Electronic Software Delivery academic collaboration programs. – contract with CJSC "Softline Trade" Tr000023480 dated 19.05.2015 Windows operating systems under OEM pre-installation licensing programs, Microsoft MSDN AA academic collaboration programs. – contract with CJSC "Softline Trade" Tr017431 dated 15.05.2008 Windows operating systems under OEM pre-installation licensing programs, Microsoft DreamSpark Premium Electronic Software Delivery academic collaboration programs. – contract with CJSC "Softline Trade" Tr000031723 dated 05.08.2015 Antivirus software - Software rights for dr.Web Server Security comprehensive protection for 120 PCs (1 license per year) migration with additional purchase (LBW-BC-12M-120:119-C4) – contract with CJSC "Softline Trade" 13982/MOS2957 dated 22.01.2016 Archivers WinRAR: 3.x: Standard Licence - for legal entities, 100-199 licenses – contract with CJSC "Softline Trade" No. 15422/IRK11 dated 05.02.2010 Network client part: Software rights for Windows Server CAL 2012 Russian OLP NL Academic Edition Device CAL, 120 licenses – contract with CJSC "Softline Trade" 13512/MOS2957 dated 29.10.2015 Firewall, Proxy functionality - Software usage rights for Traffic Inspector GOLD discounted – contract with CJSC "Softline Trade" Tr044356 dated 27.08.2013 Software usage rights for Traffic Inspector GOLD Special renewal for 1 year – contract with CJSC "Softline Trade" Tr000112196 dated 29.09.2016
Hall for group and individual consultations, formative and summative assessment	The hall is equipped with specialized (educational) furniture for 11 students, 5 workstations equipped with computers connected to the Internet and providing access to the Electronic Information and Educational Environment (EIOS) of FSBEI HE "ISU". Equipment: 1. 5 workstations: System unit HP	BASE INSTALLATION KIT FOR: Office 2007 Russian OpenLicensePack NoLevel AcademicEdition – contract with CJSC "Softline Trade" Tr026664 dated 17.05.2007 Project Standard 2007, Access 2007 - Microsoft DreamSpark Premium Electronic Software Delivery academic collaboration programs. – contract with CJSC "Softline Trade" Tr000023480 dated 19.05.2015 Windows operating systems under OEM pre-installation licensing programs, Microsoft MSDN AA academic collaboration programs. – contract with CJSC "Softline Trade" Tr017431 dated 15.05.2008 Windows operating systems under OEM pre-installation licensing programs, Microsoft DreamSpark Premium Electronic Software Delivery academic collaboration programs. – contract with CJSC "Softline Trade" Tr000031723 dated 05.08.2015 Antivirus software - Software rights for dr.Web Server Security comprehensive protection for 120 PCs (1

	Compaq dc7800SFF Dual Core PE-2180, 4 Gb DDR2 PC6400, 160GB SATA 3.0 HDD 2. 17.0" ViewSonic "VA703m" LCD display, 1280x1024, 8ms, TCO'03, silver-black (D-Sub, MM) 3. One Hewlett-Packard LaserJet 3055 All-in-One multifunction printer.	license per year) migration with additional purchase (LBW-BC-12M-120:119-C4) – contract with CJSC "Softline Trade" 13982/MOS2957 dated 22.01.2016 Archivers WinRAR: 3.x: Standard Licence - for legal entities, 100-199 licenses – contract with CJSC "Softline Trade" No. 15422/IRK11 dated 05.02.2010 Network client part: Software rights for Windows Server CAL 2012 Russian OLP NL Academic Edition Device CAL, 120 licenses – contract with CJSC "Softline Trade" 13512/MOS2957 dated 29.10.2015 Firewall, Proxy functionality - Software usage rights for Traffic Inspector GOLD discounted – contract with CJSC "Softline Trade" Tr044356 dated 27.08.2013 Software usage rights for Traffic Inspector GOLD Special renewal for 1 year – contract with CJSC "Softline Trade" Tr000112196 dated 29.09.2016
Room for student self-study work	It is equipped with specialized (educational) furniture for 10 students and computer hardware connected to the Internet with access to the ISU Electronic Information and Educational Environment (EIOS). 1. 10 units: ThinkCentre M80 Series SFF system unit kit: Intel® Core™ i3-540 Clarkdale 2.93GHz / 1333MHz / Dual Core™ / 4M/73W / LGA 1156/32nm / 4GB PC3-10600 SDRAM x 2 / 250 GB, 7200RPM SATA / DVD RW 2. 10 units: 20.0" ViewSonic "VA2013w" LCD monitor, 1600x900, 5ms, TCO 03, black (D-Sub) 3. HP LaserJet 5000N printer, A3, 22ppm, 32 MB, 250 & 500 sheet feeder,	BASE INSTALLATION KIT FOR: Office 2007 Russian OpenLicensePack NoLevel AcademicEdition – contract with CJSC "Softline Trade" Tr026664 dated 17.05.2007 Project Standard 2007, Access 2007 - Microsoft DreamSpark Premium Electronic Software Delivery academic collaboration programs. – contract with CJSC "Softline Trade" Tr000023480 dated 19.05.2015 Windows operating systems under OEM pre-installation licensing programs, Microsoft MSDN AA academic collaboration programs. – contract with CJSC "Softline Trade" Tr017431 dated 15.05.2008 Windows operating systems under OEM pre-installation licensing programs, Microsoft DreamSpark Premium Electronic Software Delivery academic collaboration programs. – contract with CJSC "Softline Trade" Tr000031723 dated 05.08.2015 Antivirus software - Software rights for dr.Web Server Security comprehensive protection for 120 PCs (1 license per year) migration with additional purchase (LBW-BC-12M-120:119-C4) – contract with CJSC "Softline Trade" 13982/MOS2957 dated 22.01.2016 Archivers WinRAR: 3.x: Standard Licence - for legal entities, 100-199 licenses – contract with CJSC "Softline Trade" No. 15422/IRK11 dated 05.02.2010 Network client part: Software rights for Windows Server CAL 2012 Russian OLP NL Academic Edition Device CAL, 120 licenses – contract with CJSC "Softline Trade" 13512/MOS2957 dated 29.10.2015 Firewall, Proxy functionality - Software usage rights for Traffic Inspector GOLD discounted – contract with CJSC "Softline Trade" Tr044356 dated 27.08.2013 Software usage rights for Traffic Inspector GOLD Special renewal for 1 year – contract with CJSC "Softline Trade" Tr000112196 dated 29.09.2016

	JetDirect 615n print server 4. HP LaserJet 5100th printer, A3, 22ppm, 32 MB, 250 & 500 sheet feeder, JetDirect 615n print server	

6.2. Software

The university is provided with the necessary set of licensed and freely distributed software, including domestic production:

1. Basic installation kit for: Office 2010 Services for granting the right to use the Microsoft Desktop Edu ALNG LicSAPk OLV E 1Y Acdmc Ent. program, 39 licenses for the ISU BMBSh. Contract No. 03-K-1131 dated November 29, 2021 KOSGU 226.4
2. Project Standard 2007, Access 2007 – ISU Azure Dev Tools for Teaching subscription (Visio, Project) 1 Year. Microsoft Corporation, One Microsoft Way, Redmond, WA 98052. Expiration Date March 31, 2023.
3. Microsoft Project Professional 2010, ISU Azure Dev Tools for Teaching subscription (Visio, Project) 1 Year. Microsoft Corporation, One Microsoft Way, Redmond, WA 98052. Expiration Date March 31, 2023.
4. Windows 7, Windows 10 operating systems – Services for granting the right to use the Microsoft Desktop Edu ALNG LicSAPk OLV E 1Y Acdmc Ent. program, 39 licenses for the ISU BMBSh. Contract No. 03-K-1131 dated November 29, 2021 KOSGU 226.4
5. Antivirus software - Dr.Web renewal Contract No. Tr000582689/03-E-0043 dated February 5, 2021, invoice No. Tr000582689 dated February 8, 2021
6. WinRAR archivers: 3.x: Standard Licence - for legal entities 100-199 licenses – Appendix No. 1 to contract No. 15422/IRK11 CJSC "Softline Trade" dated February 5, 2010
7. Network client part – Software rights for Windows Server CAL 2012 Russian OLP NL Academic Edition Device CAL 120 licenses - invoice Tr000051059 CJSC "Softline Trade" dated October 27, 2015
8. Firewall, Proxy functionality – Software usage rights for Traffic Inspector GOLD discounted invoice Tr005456 CJSC "Softline Trade" dated August 27, 2013
9. Traffic Inspector GOLD Special* for 5 years Contract RSZ-0000276 dated November 16, 2021 KOSGU 226.4 License renewal

6.3. Technical and Electronic Learning Tools

Multimedia Equipment and Other Technology for Presentation of Educational Material:

1. Desktop PC HP EliteDesk 800 G4 SFF Intel Core i5 8500 (3Ghz)/8192Mb/1000Gb/DVDrw/warranty 3y/W10Pro +V
2. ViewSonic 21.5" VA2245a monitor - LED [LED, 1920x1080, 10M:1, 5ms, 170° horizontal, 160° vertical, D-Sub]
3. NEC M420X LCD projector, 4200 ANSI Lumens, XGA, 2000:1 contrast, lamp 3500h (Eco mode), HDMI, USB Viewer, RJ-45, 10W, 3.6 kg
4. Jetbalance JB-115U 2.0 black speakers (4W)
5. Aten VS92A 2-port VGA video signal splitter

List of Licensed Software Used:

1. Office 2010 under the academic collaboration program with Russian Microsoft Desktop Education AllLng License/Software Assurance Pack Academic OLV 1License LevelE

Enterprise.

2. Project Standard 2007, Access 2007 – under the Microsoft DreamSpark Premium Electronic Software Delivery academic collaboration program.
3. Microsoft Project Professional 2010, Microsoft Visio Professional 2010 under the Microsoft Imagine Standard Electronic Software Delivery academic collaboration program with the assistance of the ISU Computer Center (CNIT ISU).

VII. EDUCATION TECHNOLOGIES

In accordance with the requirements of the Federal State Educational Standard (FSES) for the field of study, the implementation of the competency-based approach involves the extensive use of active and interactive forms of conducting classes (computer simulations, business and role-playing games, case studies) in the educational process, combined with extracurricular work, to form and develop students' professional skills. The curriculum includes meetings with representatives of Russian companies, state and public organizations, as well as master classes by experts and specialists.

The teaching of the discipline involves the use of the following educational technologies:
 Conducting classroom sessions using multimedia technologies, audio and video materials;
· Conducting lectures in the form of problem-based lectures, lecture-discussions (if necessary – in the form of webinars with recording for subsequent viewing);
· Using a problem-oriented approach through independent work assignments;
· Test technologies on the "Gekadem" distance learning platform of the Baikal International Business School;
· Applying interactive learning technologies, such as group discussions, work in small groups;
· Conducting master classes with specialists;
· Students completing tests and independent work assignments.

The proportion of classes conducted in interactive forms – practical classes – is determined by the main goal (mission) of the program, the characteristics of the student body, and the content of specific disciplines (determined by FSES requirements, taking into account the specifics of the main professional educational program). The proportion of lecture-type classes for relevant student groups is determined by the corresponding working curriculum in accordance with FSES requirements.

Distance technologies used in the implementation of various types of academic work:

· Individual communication with students via the instructor's email;
· Use of the ISU educational portal https://educa.isu.ru/ and the platform of the Baikal International Business School "Gekadem" to organize current monitoring of academic progress and attendance.

VIII. MATERIALS FOR FORMATIVE AND SUMMATIVE ASSESSMENT
The assessment fund for the discipline "Business Risk Management" is a set of assessment materials for conducting current control, including intermediate student assessment, and is presented as a section of the program.

8.1. Assessment Tools Used for Summative Assessment
There is no entrance test for the discipline.

8.2. Assessment materials (tools) that provide diagnostics of the formation of discipline competency indicators

№	Formats of Assessment Tools	Assessed themes (sections)	Assessed competencies/ indicators
1	2	3	4
1	Oral questioning	Section 1,4,5,6	UC 1, UC 2
2	Case-study	Section 3,7	UC 1
3	Report	Section 2	UC 1
4	Test	All Sections	UC -1, UC 2

8.3. Types of assessment tools used for current control and intermediate certification

The list of assessment tools used to evaluate competencies at various
stages of their formation, as well as a brief description of these tools, is provided in the
table

№	Assessment tool	Brief description of these tools	Presentation of the evaluation tool
1	Oral questioning	A tool for monitoring independent work or the assimilation of practical session results, organized as a specialized conversation between the instructor and a student on topics related to the discipline, designed to ascertain the extent of the student's knowledge on a specific section, topic, question, etc. May be used for assessing students' abilities, skills, and/or practical experience.	Questions for oral questioning on the topics (sections) of the discipline
2	Case-study	A tool for monitoring independent work or the assimilation of practical session results, which allows for the assessment of a student's ability to explain the essence of a given task, independently apply standard problem-solving methods studied within the discipline, and analyze the obtained results. May be used for assessing students' abilities, skills, and/or practical experience.	Case-study
3	Report	A product of a student's independent work, which is a public presentation or written report presenting the results of research on a specific educational-practical, educational-research, or scientific problem. May be used for assessing students' knowledge, abilities, skills, and/or practical experience.	Topics for reports
4	Test	A system of standardized tasks allowing for the automation of the procedure for measuring a student's level of knowledge and abilities. Completed by the student in the "Gekadem" LMS. The test contains 25 questions, drawn from a bank of 100 questions, with a completion time of 40 minutes and 1 attempt allowed. May be used for assessing students' knowledge and abilities.	List of test tasks
5	Interm assessment	A tool allowing for the assessment of a student's knowledge, abilities, skills, and/or practical experience in the discipline. Conducted orally in the form of an interview based on topics from section 8.7. Preparation time is 45 minutes.	List of theoretical questions and practical examination tasks

		May be used for assessing students' knowledge, abilities, skills, and/or practical experience.	

8.4. Criteria for Assessing Competency Formation during Intermediate Certification and Current Control

Oral questioning:

Grading Scale	Description of the Result (Answer)	Competency Level
86 – 100 points	The student's answer reflects the main concepts and theories on the topic, includes their critical analysis and comparison, and the described theoretical propositions are illustrated with practical examples and empirical data. The student formulates and substantiates their own point of view on the stated problems. The material is presented using professional language and the appropriate system of concepts and terms.	High
71 – 85 points	The student's answer describes and compares the main modern concepts and theories on the topic. The described theoretical propositions are illustrated with practical examples. The student formulates their own point of view on the stated problems but experiences some difficulty in arguing it. The material is presented using professional language and the appropriate system of concepts and terms.	Baseline
61 – 70 points	The student's answer reflects only some modern concepts and theories on the topic; analysis and comparison of these theories are not conducted. The student experiences significant difficulty in illustrating theoretical propositions with practical examples. The student lacks their own point of view on the stated problems. The material is presented using professional language and the appropriate system of concepts and terms.	Minimal
0 – 60 points	The student's answer does not reflect modern concepts and theories on the topic. The student cannot provide practical examples. The material is presented inconsistently and illogically; concepts and terms from the relevant scientific field are not used. The answer reflects the student's system of non-professional views on the stated problem; the student cannot name a single scientific theory or define basic concepts.	Competencies not formed

Case-study:

Grading Scale	Description of the Result (Answer)	Competency Level
86 – 100 points	The case task was solved by the student in full, adhering to the required sequence of actions. The student worked completely independently; demonstrated the theoretical knowledge, practical abilities, and skills necessary to perform the work. The solution is neatly formatted and presented, without significant shortcomings.	High
71 – 85 points	The case task was solved by the student in full and independently. There were minor deviations from the required solution sequence that did not affect the correctness of the final result. The solution demonstrates the student's knowledge of the main theoretical material and mastery of the skills necessary for	Baseline

	independent work. Minor inaccuracies and carelessness in formatting the results are present..	
61 – 70 points	The case task is solved by the student with external assistance. Preparation of the solution requires a significant amount of time. The student shows knowledge of the theoretical material but experiences difficulty when working independently with knowledge sources.	Minimal
0 – 60 points	The case task was not solved by the student. The results obtained by the student do not allow for correct conclusions and completely diverge from the set goal. The work shows poor knowledge of the theoretical material and a lack of necessary skills.	Competencies not formed

Report:

Grading Scale	Description of the Result (Answer)	Competency Level
86 – 100 points	The problem related to the report (presentation) topic is identified and its relevance is justified. A concise analysis of various viewpoints on the issue is provided, and the student's own position is logically presented. Conclusions are formulated, and the topic is fully covered.	High
71 – 85 points	The problem related to the report (presentation) topic is identified and its relevance is justified. The analysis of various viewpoints on the issue does not reflect all scientifically substantiated positions. The student's own position or the formulated conclusions are not entirely logical. The topic is covered sufficiently.	Baseline
61 – 70 points	The problem related to the report (presentation) topic is identified, but its relevance is not justified. Analysis of various viewpoints on the issue is absent. There is a lack of logic and a defined personal position in formulating conclusions. The topic is partially covered.	Minimal
0 – 60 points	The subject matter of the report (presentation) topic is not revealed. Existing viewpoints on the given problem are not presented. There is no personal point of view. Conclusions are not formulated.	Competencies not formed

Test:

Grading Scale	Description of the Result (Answer)	Competency Level
86 – 100 points	The proportion of correct answers accounts for 86-100% of the total questions in the test	High
71 – 85 points	The proportion of correct answers accounts for 70-85% of the total questions in the test	Baseline
61 – 70 points	The proportion of correct answers accounts for 61-70% of the total questions in the test	Minimal
0 – 60 points	The proportion of correct answers accounts for 0-60% of the total questions in the test	Competencies have not been formed

Interm assessment:

Grading Scales		Grading Criterion	Competency Level
86 – 100 points	Pass	The student answered the theoretical questions correctly. Demonstrated excellent knowledge within the scope of the course material. Correctly completed	High

		the practical assignments. Demonstrated excellent abilities and mastery of skills in applying the acquired knowledge and abilities to solve problems within the scope of the course material. Answered all supplementary questions.	
71 – 85 points		The student answered the theoretical questions with minor inaccuracies. Demonstrated good knowledge within the scope of the course material. Completed the practical assignments with minor inaccuracies. Demonstrated good abilities and mastery of skills in applying the acquired knowledge and abilities to solve problems within the scope of the course material. Answered most supplementary questions.	Baseline
61 – 70 points		The student answered the theoretical questions with significant inaccuracies. Demonstrated satisfactory knowledge within the scope of the course material. Completed the practical assignments with significant inaccuracies. Demonstrated satisfactory abilities and mastery of skills in applying the acquired knowledge and abilities to solve problems within the scope of the course material. Made many inaccuracies when answering supplementary questions.	Minimal
0 – 60 points	Fail	The student demonstrated an insufficient level of knowledge and abilities when answering theoretical questions and completing practical assignments for solving problems within the scope of the course material. Many incorrect answers were given to supplementary questions.	Competencies not formed

8.5. Description of the procedures for conducting intermediate certification and evaluating learning outcomes

Intermediate certification in the form of an exam is conducted taking into account the results of current progress monitoring throughout the semester in the form of testing based on the material studied during the semester. The assessment tools and standard control tasks used in current monitoring, combined with testing, allow for the evaluation of students' knowledge, abilities, and mastery of skills/practical experience in mastering the discipline. To utilize the results of current progress monitoring, the instructor calculates the average score of the student's competency development level (the sum of scores received by the student is divided by the number of scores). The testing time is announced to students in advance. Test questions are formed from a pool of questions covering all tests, topics, and sections of the discipline. The test contains at least 25 questions, with an allotted time of 45 minutes and one attempt allowed.

8.6. Demonstration versions of current monitoring assessment tools

№	Name of the assessment tool	Example of the assessment tool
1	Oral examination questions on the topics (sections) of the discipline	Definition of Management Accounting. Systems of Management Accounting. Historical approaches to the formation of management accounting concepts. Modern accounting concepts. Management Functions Implemented in Management accounting. Accounting systems. Comparison of financial and management accounting. Requirements for accounting organization. Management reporting.

		Costs. Definition. Expenses, costs, expenditures. Systems of cost accounting and management. Cost Classification According to the Main Directions of Management accounting. Direct and indirect costs. Fixed and variable costs. Marginal costs. Average costs. Total costs. Simple and complex costs. Differential costs. Sunk costs. Productive (efficient) and non-productive (inefficient) costs. Opportunity costs. Controllable and uncontrollable costs. Economic elements of costs. Specifics of costs for innovative and IT products. Types of Cost and Methods of Cost Accounting. In relation to the technological process. Based on the completeness of cost inclusion in the cost price. Based on the method of cost valuation. Traditional methods. Process costing, operation costing, job-order costing. Based on actual costs. Standard cost method. Standard costing. Direct costing. Absorption costing (full cost accounting). Non-traditional methods. Throughput accounting. Methods of Allocating Indirect Costs. ABC method (Activity-Based Costing). ABCM method (Activity-Based Cost Management). SMA method (Strategic Management Accounting). Application of indirect cost allocation methods for innovative and IT products. Other Cost Management Methods for Innovative and IT Products. Target costing. Lifecycle costing. Tasks of Cost Calculation. Types of cost estimates. Basic principles of organizing cost calculation. Influence of the costing method on the value of financial results. Cost Separation Methods for Innovative and IT Products. Separating mixed costs into fixed and variable components. High-low method. Variance method. Least squares method. Linear and Non-linear Cost Behavior. Linear and non-linear costs for innovative and IT products. Non-linear costs at the relevant level. Analysis of Cost Behavior for Innovative and IT Products. Cost-Volume-Profit (CVP) analysis. Break-even point. Resource Management Throughout the Lifecycle of Innovative and IT Products. Key resources for innovative and IT projects. Production/Development Capacity for IT/Innovations. Types of capacity. Planning and accounting for capacity utilization. Optimal capacity utilization. Product mix decisions under resource constraints. Tasks. Approaches to Inventory Management. Types of logistics systems. Classification of inventories in innovative and IT activities. Inventory valuation methods (e.g., FIFO, LIFO). Concept, Types and Forms of Acquiring Innovations. Classification of innovations. The innovation process. An innovation project as a form of innovation management. Business planning for a series of innovative and IT products. Management accounting for Sales. Revenue recognition for products. Sales profitability.

		Cost-Based Pricing. Pricing for Innovative and IT Products. Essence, Goals, Principles of Budgeting. Role in the management system of an innovative and IT company. The budgeting process. Causes of ineffective budgeting processes. Types, Components and Structure of Budgets. Operating budgets: composition and structure. Financial budgets: composition and structure. Coordination of all budgets. Budget execution. Cash flow budget. Income and expenditure budget (Profit and Loss budget). Forecasted balance sheet. Specifics of constructing operating budgets. Overview of Modern Software Tools for Automating Budgeting Systems. Analysis of Variances Between Actual and Planned Values. Systems of indicators (e.g., Balanced Scorecard). Key Performance Indicators (KPIs) for Innovations and IT Products. Concepts of efficiency, effectiveness, and productivity. Performance indicators.
2	Case-study	Task 1 Tatiana, a junior frontend developer at an IT company, currently earns 25,000 RUB per week. She wants to create her own innovative product: an online programming education platform with an adaptive AI trainer (SkillFlow). She will face the following expenses: 1. To create the basic version of the platform, a simple AI algorithm for recommendations and task checking, and a basic interface, freelancers were hired (1 backend developer, 1 frontend developer, 1 part-time ML engineer). Their services will cost approximately 650,000 RUB. 2. In-depth courses in Machine Learning (ML) and instructional design to improve the product will cost 75,000 RUB. Tatiana knows that similar platforms charge 200 - 400 RUB per hour for individual or small-group learning with a mentor/assessment. Costs for computing resources, data storage, and traffic are 1.50 RUB per 1 hour of a user's active platform usage. Advertising expenses (social media, Yandex Direct), SEO - 15,000 RUB per week. SaaS tool subscriptions - 2,500 RUB per week. To handle inquiries, Tatiana hired a freelance student for 12,000 RUB. The platform and AI models need significant updates every 2 years to remain competitive. To develop the basic version of the platform and for her training, Tatiana decided to take a bank loan at 18% annual interest. She plans to work on the project for 30 hours per week (development, marketing, support) and wants to enter the market with a competitive price of 150 RUB per hour of active learning on her platform, assuming users will actively use the platform for an average of 3 hours per week (or 150 hours per year).

It is necessary to calculate the break-even point (number of active users per week), the estimated weekly profit (with 100 active users per week using the platform for 3 hours). Compare her potential income with her current salary.

Task 2
You are offered to buy a small company "SmartTail," which developed and started production of smart feeders for cats/dogs with app control. Due to a sharp increase in electronics prices and logistics problems, the company failed to purchase the final components to complete the current batch. The project has been "frozen" for 8 months, and assets are now being sold at book value.

To evaluate this offer, the founder provided the following business model and presented his sales vision for the 1st year after launch:

Product: "SmartFeed Mini": Basic feeder (1 compartment, Wi-Fi, app, scheduled dispenser). Plan: 1,500 units at 12,000 RUB/unit.

Product: "SmartFeed Pro": 2 compartments (dry food and treats), camera, fill-level sensor, advanced app. Plan: 800 units at 22,000 RUB/unit.

The founder advises assembling a reserve of 1,800 Mini and 1,000 Pro units (in case of defects, warranty cases, or sudden demand).

Key components are Wi-Fi modules and stepper motors for dispensers. Consumption norm for Mini: 1 Wi-Fi module and 1 motor. Consumption norm for Pro: 1 Wi-Fi module and 2 motors. The warehouse already has the following inventory:

· Batch 1 (paid for last year): 1,800 Wi-Fi modules at 800 RUB/unit; 2,000 motors at 1,200 RUB/unit.

· Batch 2 (delivered but not yet paid, needs payment after buying the company): 1,000 Wi-Fi modules at 1,100 RUB/unit; 1,200 motors at 1,600 RUB/unit.

· Batch 3 (contract with deferred payment): 500 Wi-Fi modules at 1,300 RUB/unit; 600 motors at 1,800 RUB/unit. Payment deferral is 90 days. The founder insists: "Prices are only rising, you won't find cheaper!".

Already paid investments:

· App development, firmware, housing design: 750,000 RUB.

· Molds for housing casting (3D-printed master models): 150,000 RUB.

· Spare parts (control boards, augers): 200,000 RUB.

Depreciation (first year): Intangible Assets (20%) - 150,000 RUB, Equipment (15%) - 22,500 RUB.

Additionally, the following need to be purchased urgently: A batch of microcontrollers: 3,000 units at 350 RUB/unit (without them, the feeders don't work).

Planned expenses:

Workshop rent and utilities: 25,000 RUB/month (Prepayment for 1 quarter: 75,000 RUB upfront!).

Cloud server (user data storage, management): 5,000 RUB/month (Prepayment for a year).
Marketing (Targeted ads on social media, collaborations with pet bloggers): 400,000 RUB/year.
Salaries: Electronics engineer (70,000 RUB/month), assembler (45,000 RUB/month), marketer (60,000 RUB/month). Insurance contributions (30%).
Large pet store chains pay 60 days after delivery. Small stores and marketplaces pay within 15-30 days.
The company has authorized capital: 300,000 RUB and has taken a loan of 1,500,000 RUB at 18% annual interest. During the 8 months of inactivity, interest was not paid, and there is outstanding interest on it.
To launch production, pay for components (Batch 2), salaries, and cover operating expenses until the first receipts, 1,200,000 RUB are needed (possibly as an interest-free loan).
1. How much money is needed immediately to pay debts, buy microcontrollers, rent, cloud services, and working capital.
2. Calculate the cost and profit margin per 1 feeder (Mini and Pro).
3. Is it worth buying the company?

Task 3
You are a manufacturer of components for household water filters. Your old product (simple carbon cartridges) from next year will not meet new Rospotrebnadzor requirements for heavy metal removal efficiency. Amid the departure of foreign brands and growing demand for clean water, you decided to launch an innovative product: "Smart AquaControl+ Cartridges." Their features:
1. Improved filtration: Multi-layer material that effectively removes heavy metals and nitrates (import-substituting analog).
2. Built-in chip storing data on installation date, resource (liters), and cartridge type.
3. Mobile app showing cartridge resource remaining in % and liters, reminding about replacement, and offering a subscription (ordering a new cartridge with home delivery when resource reaches 10%).
Your new business direction involves selling the cartridge itself (one-time) and a subscription for regular delivery of new cartridges.
You are on the general taxation system (VAT 20%, Profit Tax 20%, Property Tax 1.1% of the residual value of fixed assets at year-end, Insurance Contributions 30% of payroll, Personal Income Tax 13%). There are no tax debts at the start of the project.
It is necessary to compile a balance sheet at the end of the previous year and at the end of the first year of the project. Calculate an investment project for 3 years.
Initial data (at the end of the previous year):

1. Authorized capital: 600 thousand RUB. Required shareholder rate of return: 24%.

2. Uncovered loss: 550 thousand RUB (from production of old cartridges).

3. Balance on long-term loan: 1,200 thousand RUB (original term was 5 years, 3 years remain). You plan to attract an additional 10,000 thousand RUB in cash for 5 years. Annuity payment, interest rate 17% per annum. Payments at the end of the year for the current period.

4. You owed 1,100 thousand RUB for raw materials for old cartridges (carbon, housing).

5. You have rights to the "AquaApp" mobile application software: 750 thousand RUB. Useful life (UL) 3 years, used for 1 year. Also have the "AquaControl+" trademark: 150 thousand RUB.

6. There is a carbon cartridge pressing line: Initial cost 400 thousand RUB. UL 7 years, used for 3 years. You plan to purchase an automatic material filling and chip installation line for 7,000 thousand RUB (including 20% VAT). UL of new equipment – 5 years. For tax accounting, depreciation in the first year with a coefficient of 2 (accrued at year-end).

7. Raw material inventory for old cartridges: 350 thousand RUB, finished goods (old cartridges): 200 thousand RUB. You are owed 850 thousand RUB for shipped old cartridges. Cash on the current account: 50 thousand RUB.

Within the project (for 3 years) you plan:

1. Increase authorized capital by 4,000 thousand RUB in cash (investment).

2. Purchase necessary materials for housings, chips for 12,000 thousand RUB (including 20% VAT) and pay in full. In subsequent years, purchase raw materials for the amount of annual need.

3. Rent an additional warehouse for raw material and finished goods storage. Rent: 3,000 thousand RUB per year (without VAT, warehouse rent). Pay upfront for 1 year.

4. Produce 20 batches of "AquaControl+" cartridges per year. One batch = 1,000 cartridges. Price per cartridge for end customer: 1,200 RUB (including 20% VAT). Sell 18 batches per year through retail chains and online (wholesale). Shipment upon contract/order with 60-day payment deferral. Raw material cost per cartridge: 250 RUB without VAT (special filling, housing, chip).

5. It is expected that 30% of sold cartridges will activate a subscription via the app. Subscription revenue (delivery of a new cartridge at raw material cost plus a markup) will be accounted for in the following year.

6. It is expected to receive 800 thousand RUB from customers for old cartridges, and you plan to pay 1,000 thousand RUB for old raw materials.

7. Commercial expenses will be 1.5% of revenue (including VAT). Paid in the current year. Administrative expenses: 1.5% of revenue (including VAT). Paid in the current year.

Salary of technologists, line operators, app developer – 1800 thousand RUB. Accrued and paid (together with insurance contributions) in full in the current year.
8. Inflation 8% per year. Prices for raw materials, commercial/administrative expenses, payroll increase with inflation. The cartridge price for the end customer is also indexed for inflation each year.

Task 4
An Individual Entrepreneur (IP) owns a small IT company "CodeProfi," which provides the following services:
1. Custom mobile app development (Projects). 25 projects are completed per year. Average project revenue (after all approvals) is 240,000 RUB.
2. SaaS service (Subscription): Selling a subscription to a cloud-based accounting service for small businesses. Average number of paying users per month is 1,500. Monthly subscription cost is 300 RUB.
The company has 4 in-house developers: Total payroll fund (including Personal Income Tax and insurance contributions) is 600,000 RUB per month. SaaS technical support (2 people): Payroll fund (including taxes) is 200,000 RUB per month. Overhead personnel expenses (office, social package, tools) are 20% of the developers' and support staff payroll.
Server equipment was purchased 3 years ago for 1,200,000 RUB. Useful life is set at 5 years, depreciation is calculated linearly. Residual value at the beginning of the year is 480,000 RUB. The IP decided to write off 50% of the servers' residual value (240,000 RUB) at once, citing obsolescence. Software licenses for development were purchased this year for 360,000 RUB. The IP fully wrote off their cost in the reporting year, although the market useful life for such licenses is typically 3 years.
Office rent is 80,000 RUB per month. Internet and telecommunications are 20,000 RUB per month. Electricity is 10,000 RUB per month. 70% of these costs relate to development (Projects), 30% to SaaS support and development (Subscription).
Online advertising and service promotion costs are 90,000 RUB per month.
This year, the IP refused the services of an external manager, who last year received 720,000 RUB (including taxes). The IP took over management.
Average cash balance in current account and cash register is 500,000 RUB.
Customer receivables (mainly for Projects) average 400,000 RUB.
The company has a development loan for the SaaS service in the amount of 1,000,000 RUB at 8% annual interest. Market rate for similar loans is 10%. The rest of the financing is the IP's own funds.

Determine the company "CodeProfi's" financial result for the year.

Determine the profit per completed project and per paying SaaS user per year.

Evaluate the justification of the IP's plan to increase the SaaS subscription price by 10% (to 330 RUB/month). Marketing analysis shows this will lead to a loss of 15% of current paying users.

Task 5

You are offered to buy a company that produces computer games. Calculate the forecasted profit, cash, and prepare a balance sheet for the next year. Also calculate how much additional money you need to invest.

The company produces computer games (G), consoles (C), and merchandise (M).

From game sales, the company plans to receive 500 RUB per 1 game, and about 1,700 RUB from in-game purchases, for a total of 5,000 games. Consoles will be sold for 21,000 RUB each, and it is planned to sell 1,000 units. Merchandise will be sold for an average of 1,500 RUB, and 9,000 units are planned for sale.

The warehouse has 500 consoles at a book value of 14,000 RUB each, and 2,000 units of merchandise at a book value of 750 RUB per unit.

To produce consoles, it is planned to purchase electronics kits (1 kit per console), 800 kits at 13,000 RUB, and produce 600 consoles.

To produce merchandise, it is planned to purchase three batches of raw material kits: 1st batch – 3,000 kits for 700 RUB, 2nd batch 3,000 kits for 750 RUB, 3rd batch 3,000 kits for 800 RUB. At the same time, the plan is to produce 8,000 units of merchandise.

The company needs to invest in advertising, about 4,500,000 RUB, and update equipment. Currently, the equipment on the balance sheet is valued at 2,500,000 RUB, its useful life is 5 years. It is necessary to purchase additional equipment for 500,000 RUB, with a useful life of 10 years (equipment and all expenses are incurred at the beginning of the period, before revenue is received). For expenses, there are own funds of 2,500,000 RUB, cost of capital 14%, and for the rest, a loan is taken at a rate of 15%. The loan is repaid at the end of the year (the account must have at least 500,000 RUB left), interest is paid before repayment.

The company has debts totaling 12,000,000 RUB and authorized capital of 400,000 RUB.

For previously sold products, the company is owed 1,400,000 RUB, half of this amount will be repaid this year, the other half will have to be written off.

We will need to pay rent for 2 years in advance, annual rent is 500,000 RUB.

		We are also laying off some staff; they will need to be paid 180,000 RUB, the remaining staff's wages will be about 350,000 RUB plus 30% funds. Property tax is 1.1% per annum, plus there is a royalty/sales fee on consoles (copyrights, etc.). It is a percentage of the console price and equals (the number of the first letter of your patronymic in the alphabet +1, if the number is from 1 to 9. If 10 or more, then the second digit + 1. Don't forget to write your patronymic and the number). No VAT, corporate profit tax is 20%. Oh, and you really want to receive dividends of at least 500,000 RUB. Calculate cash using both the DIRECT and INDIRECT methods.
3	Report topics	Requirements for Accounting Organization Specifics of Managerial Accounting for Innovative and IT Companies Managerial Reporting for Innovative and IT Enterprises Key Performance Indicators for Innovative and IT Products

8.7. Example of test tasks for Summative Assessment

8.7. Sample Test for Intermediate Assessment (Exam).

Finding marginal profit per unit of a limiting factor is necessary when analyzing a decision:
· to sell or process further
· to buy or make internally
· to accept or reject a special order
· product mix (assortment) selection

Territorial price differentiation allows to:
· provide a discount to a client
· earn additional profit per unit of goods
· no correct answer
· account for different conditions of goods delivery

The budget for indirect materials and indirect wages is a:
· cash budget
· administrative expense budget
· selling expense budget
· manufacturing overhead budget

Demand can be considered elastic if:
· a significant price decrease leads to an insignificant demand increase
· no correct answer
· demand does not change when price changes
· an insignificant price decrease leads to a significant demand increase

How many "Work in Progress" sub-accounts will a company use under the process costing method?
· depends on the volume of output
· only one
· always three
· one for each production department

To conduct CVP analysis (Cost-Volume-Profit), costs should be classified into:
· controllable and non-controllable
· justified and unjustified

· relevant and non-relevant
· fixed and variable

A company is developing a new digital service. Costs for development and initial deployment of 100,000 subscriptions were planned at 150,000 rubles (including fixed expenses for IT infrastructure, core development, and software licenses - 30,000 rubles). Actual development and deployment costs amounted to 142,500 rubles for creating and launching 90,000 subscriptions. What will be the production cost variance (development and deployment budget variance) due to resource usage efficiency (efficiency variance):
· favorable, 6,500
· unfavorable, 5,500
· unfavorable, 4,500
· unfavorable, 6,500

Determine the price for a new product if the manufacturing cost is 50 rubles and the profitability on total cost is 20%.
· 62.5 rub.
· 67.5 rub.
· 65 rub.
· 60 rub.

An enterprise produces an innovative product: flexible perovskite-based solar panels. Manufacturing one panel according to the technological map (standard) requires 5.5 m² of a special light-absorbing perovskite layer costing 15 rub. per 1 m². During the reporting period, 900 panels were manufactured. Actual material costs amounted to 5,000 m² of perovskite layer with a total cost of 72,500 rub. Determine the material usage variance (quantity variance), rub.
· 330
· 750
· 900
· 50

Total production costs for 8,000 units amounted to 80,000 rub. (specifically, variable costs - 48,000 rub.). Total production costs for 10,000 units are:
· 80,000
· 108,000
· 98,000
· 92,000

If software prices increase significantly, then:
· computer sales will increase
· computer sales will not change
· buyers will not buy them at all
· computer sales will decrease

Which of the listed documents contains basic information for planning direct material costs, direct labor costs, and manufacturing overhead?
· budgeted income statement
· cash budget
· capital expenditures budget
· production budget

A Responsibility Center, whose manager should have the ability to control profit and the size of their assets, is a:
· revenue center
· profit center
· cost center
· investment center

The master budgeting process begins with:
· the production budget

· the cost of goods sold budget
· defining organizational goals
· the sales budget

The following data on an enterprise's activity is available: sales - 1,200,000 rub., variable costs - 240,000 rub., fixed costs - 60,000 rub. The enterprise's break-even point is, rub.:
· 60,000
· 300,000
· 240,000
· 75,000

Managerial accounting differs from financial accounting in:
· level of detail
· openness of data
· time orientation
· all of the above characteristics

Which statement is correct?
· Financial accounting is primarily oriented towards internal users of information
· Financial accounting is a much more detailed accounting system than managerial and tax accounting
· Managerial accounting duplicates financial and tax accounting
· Compared to other types of accounting, tax accounting rules are the most rigid

Classifying costs as fixed or variable cannot be done using:
· the high-low method
· regression analysis
· analysis of accounting records
· the Box-Jenkins method

In which market competitive structure is the use of the competitor-based pricing method limited?
· in a perfectly competitive market
· in an oligopolistic market
· in a monopolistically competitive market
· in a pure monopoly market

If the price expectation elasticity equals 1, then:
· prices will rise in the future
· a price decrease is expected in the future
· the current price change will not affect future prices
· prices are stable

Which factors do not influence an enterprise's pricing strategy?
· demand purchasing power
· competitive situation in the market
· producer's costs
· no correct answer

Which costing system does NOT exist?
· job-order
· process
· hybrid
· step-by-step

Which method for determining cost behavior is the most labor-intensive?
· collective expert assessment of departments
· analysis of accounting data
· quantitative methods
· studying technological relationships between resource consumption and finished products

Variable costs constitute 70% of sales, and total fixed costs are 105,000 rub. The break-even point is, rub.:

· 73,500
· 315,000
· 150,000
· 350,000

Which of the following statements is incorrect?
· A flexible budget helps a company control overhead costs
· A flexible budget covers a range of activity within which the company can operate
· A flexible budget provides a useful basis for comparing actual and expected costs
· A flexible budget is identical to a static budget

A startup developed a fitness app with a premium subscription. Investments were: long-term assets 450,000 rub., current assets 150,000 rub., monthly fixed costs 55,000 rub., variable costs per paying user (payment system commissions, additional traffic): 35 rub./user. Production capacity of servers: serves 5,000 paying users per month. Goal: Achieve an ROI of 20% in the first year. What will be the minimum subscription price required to cover costs and earn target profit at full capacity?
· 75
· 85
· 95
· 105

What is the break-even point (in units), if the selling price is 6 rub., variable cost per unit is 4 rub., fixed costs for the period are 100 rub.:
· 100 units
· 80 units
· 20 units
· 50 units

Determine the break-even point in physical units if fixed costs are 50,000 rub., price is 10 rub., and variable cost per unit is 5 rub.
· 15,000
· 5,000
· no correct answer
· 10,000

Work in progress is:
· an incomplete capital investment object
· ending materials inventory
· products stored in the production workshop
· products that have not passed all stages of production

Which method of cost allocation between departments should be used if there are service departments that serve other service departments?
· direct allocation
· reciprocal allocation
· step-down allocation

The job-order costing method is applied:
· in mass and large-scale production
· at industrial enterprises with unit and small-batch production.
· production of serial high-tech equipment
· for mass homogeneous production

Dividing costs into fixed and variable:
· is formal, precise, and done unambiguously
· is a mandatory procedure, legally fixed
· no correct answer
· has a degree of convention

The relevant approach to managerial decision-making involves using information:
· about all expected revenues and expenses

· about standard costs
· about actual costs
· relating only to this specific decision

How does a pricing strategy aimed at selling goods at low prices differ from a sale?
· the price at which the goods are sold
· does not differ at all
· all answers are correct
· duration of action

Determine the selling price for a new product if the production plan is 10,000 units per year, direct material costs per unit are 1,000 rub., direct labor costs per unit are 4,000 rub., fixed expenses are 2 million rub. per year, desired profit is 4 million rub. per year.
· 1,400 rub.
· 2,500 rub.
· 600 rub.
· 2,000 rub.
· No correct answer

The following cost information is available (in thousand rub.): direct material costs – 180, direct labor costs – 660, dealer commissions – 500, foremen's salaries – 420, auxiliary production materials – 60, advertising expenses – 80, depreciation of production equipment – 192. Determine the amount of manufacturing overhead.
· 840 thousand rub.
· 672 thousand rub.
· 140 thousand rub.
· 580 thousand rub.

The selling expense and administrative expense budget usually does not include:
· insurance of finished goods
· stationery expenses
· office rent expenses
· machine depreciation expenses

How will the demand volume change if the elasticity coefficient is 1 and the price increases by 10%?
· will increase by 10%
· will increase by 1%
· will not change
· will decrease by 10%

Given the existence of a competitive market for an intermediate product, weak interdependence between departments, and no costs of choosing between internal and external suppliers, which transfer pricing method will be most appropriate?
· "free" market price
· all answers are correct
· market transfer price

What are the main problems of traditional job-order costing?
· "spreading" indirect costs
· costs are averaged across cost objects
· hidden cross-subsidization
· all answers are correct

What is CVP (Cost-Volume-Profit) analysis used for?
· to evaluate company performance
· for planning and shaping the cost structure
· for pricing
· all answers are correct

In case of a limited number of machine-hours, one should produce the product which:

· has the highest contribution margin per unit
· requires fewer machine-hours
· has the highest contribution margin ratio
· provides the highest contribution margin per 1 machine-hour

How to determine the target operating profit point?
· TPPu = (VC+PR) / (P – FCu)
· TPPu = (FC-PR) / (P – VCu)
· TPPu = (FC+PR) / (P + VCu)
· TPPu = (FC+PR) / (P – VCu)

A company developed and sold 500 units of an innovative portable biosensor for health analysis at a price of 1,200 rub. per unit. The company's fixed costs (R&D, marketing, lab rent) amounted to 300,000 rub., and operating profit for the period was 150,000 rub. The company's total variable costs (cost of electronic components, sensor elements, packaging, logistics per unit) are:
· 450,000 rub.
· 250,000 rub.
· 300,000 rub.
· 150,000 rub.

Under which type of costing is the ratio of actual direct cost rates to planned indirect cost rates used?
· actual (historical)
· budgeted
· planned
· normal

Target costing is used to reduce:
· selling price to allowable cost
· target cost to allowable cost
· initial budgeted costs to allowable cost
· initial budgeted costs to target cost

The procedure for maintaining management accounting:
· is regulated by the Ministry of Finance
· is determined by the International Federation of Accountants
· is described in tax legislation
· is established by the company's management

Fixed cost per unit was 3 rub. at a production volume of 10,000 units. What is the fixed cost per unit at a production volume of 6,000 units:
· no correct answer
· 3
· 4
· 5

Information about future costs and revenues that differs among alternatives is called:
· incremental information
· variable cost information
· avoidable cost information
· relevant information

An enterprise manufactures aluminum fasteners. During the quarter, production costs were: wages: machine operators – 140,000 rub., foremen – 75,000 rub., mechanics – 40,000 rub.; materials: aluminum – 400,000 rub., machine spare parts – 36,000 rub., lubricants – 12,000 rub. The enterprise's direct costs are:
· 592,000
· 651,000
· 703,000
· 540,000

Total enterprise production costs for 20,000 units amounted to 240,000 rub. (specifically, variable cost per unit — 7 rub.). Enterprise costs for producing 15,000 units are:

· 180,000
· 240,000
· 275,000
· 205,000

Variable cost per unit was 6 rub. at a production volume of 1,000 units. What is the variable cost per unit at a production volume of 1,500 units:

· 4
· 5
· no correct answer
· 6

The production cost of parts manufactured by "Last" enterprise is 9.4 rub. (including fixed costs of 3.8 rub.). Another enterprise offers to supply these parts at a price of 7 rub. The total cost per part for "Last" enterprise in case of purchase will be, rub.:

· 5.6
· 7.0
· 13.2
· 10.8

An enterprise applies a predetermined manufacturing overhead allocation rate based on machine-hours. The following cost information is available (in thousand rub.): direct material costs – 180, direct labor costs – 660, dealer commissions – 500, foremen's salaries – 420, auxiliary production materials – 60, advertising expenses – 80, depreciation of production equipment – 192. Next year, 64,000 machine-hours are planned for production. Determine the manufacturing overhead allocation rate.

· 32.7 rub./machine-hour
· 20 rub./machine-hour
· 13 rub./machine-hour
· 10.5 rub./machine-hour

What is the price for a new product if the production plan is 40,000 units, variable cost per unit is 30 rub., fixed costs are 800 thousand rub. To implement the project, a loan of 1 million rub. was taken at 20%.

· 30 rub.
· 35 rub.
· 50 rub.
· 55 rub.

If both fixed and variable costs per unit increase simultaneously, the break-even point:

· decreases
· does not change
· the effect cannot be determined due to insufficient information provided
· increases

A startup produces innovative "Smart Glasses". Usually, glasses are sold for 90 monetary units (costs for micro-displays, processor, sensors, and assembly — 36 monetary units, and fixed costs — 24 monetary units per pair). The enterprise received a special order from a university for the production and supply of 1,000 pairs of glasses at a special price of 50 monetary units per pair. The enterprise has spare production capacity to fulfill this order without reducing regular sales. If this special order is accepted, the enterprise's profit (from this order):

· will decrease by 7,000 monetary units
· will increase by 18,000 monetary units
· will decrease by 14,000 monetary units
· will increase by 14,000 monetary units

Developed by:

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