



**MINISTRY OF SCIENCE AND HIGHER EDUCATION  
OF THE RUSSIAN FEDERATION**  
Federal State Budgetary Educational Institution of Higher Education  
**"IRKUTSK STATE UNIVERSITY"**  
**SAF, Baikal International Business School (Institute)**  
Strategic and Financial Management Department



APPROVED:

Dean of SAF, Baikal International Business  
School (institute)

N.B. Grosheva

April 14, 2025

**Syllabus**

Discipline Б1.Б.ДВ.03.01 Product Innovations

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 March 26, 2025

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

Chairperson  V.M. Maksimova

Department  
Chair

N.B. Grosheva

Irkutsk 2025

## Table of Contents

I. Goals and objectives of the discipline (Module)	3
II. Place of the Discipline in the CPEP Structure	3
III. Requirements for the Discipline Learning Outcomes	3
IV. Contents and Discipline Structure	6
4.1. Discipline Contents, Structured by Topics, with Indicated Types of Classes and Allocated Academic Hours	6
4.2. Plan for Out-of-Class Student Self-Study of the Discipline	7
4.3. Learning Content	9
4.3.1. List of Practical Sessions	9
4.4. Guidelines for Organizing Student Self-Study	12
V. Educational, Methodological, and Information Support for the Discipline	13
a) Required Reading	13
b) Databases, Search and Reference Systems, and Information Systems	13
VI. Material and Technical Support for the Discipline	14
6.1. Educational and laboratory equipment	14
6.2. Software	16
6.3. Technical and Electronic Learning Tools	17
VII. Education Technologies	17
VIII. Materials for Formative and Summative Assessment	18

## I. Goal and Objectives of the Discipline (Module)

**Goals:** Formation of knowledge and skills related to understanding the processes of creation, implementation and management of product innovations, methods for assessing innovative activities, analyzing the innovative potential of the company, as well as skills for applying innovative approaches in the development of new products and improvement of existing ones on the market.

**Objectives:** The most important tasks of the discipline are:

- increasing the level of students' knowledge of modern methods and tools for managing product innovation activities;
- training students in the basics of developing innovative products, assessing their life cycle, managing innovative projects and analyzing innovative processes in the organization;
- familiarization of students with modern practices of innovation, market analysis tools and assessment of consumer needs;
- development of strategic, creative and analytical thinking in students for effective management of product innovations.

## II. Place of the Discipline in the CPEP Structure

Academic discipline (module) Б1.Б.ДБ.03.01 Product Innovations refers to the variable part of the bachelor's program of Section 1 Disciplines (modules) in accordance with the Federal State Educational Standards of Higher Education for the major 27.03.05 Innovatics.

The list of subsequent academic disciplines that require knowledge, skills and abilities formed by this academic discipline: Б1.Б.15 Management of innovative projects, Б2.О.02 (ПД) pre-graduation practice, Б3.01 (Д) Preparation of Qualification Paper and its Defense.

## III. Requirements for the Discipline Learning Outcomes

The process of mastering the discipline is aimed at the formation of competencies of PC-2.2 and PC-5.3 in accordance with the Federal State Educational Standards of Higher Education and EP HE for the major 27.03.05 Innovatics.

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

Competency	Competency Achievement Indicators	Learning outcomes
PC-2 Able to manage the budget of a series of IT products and innovative products	PC 2.2 Knows how to manage the project budget in the field of information technology and innovative projects	<b>Knowledge:</b> <ul style="list-style-type: none"><li>- basic methods and approaches to the management of innovative projects and products.</li><li>- life cycle of an innovative project and product, phases and stages.</li><li>- modern tools and techniques for managing projects and products.</li></ul> <b>Abilities:</b> <ul style="list-style-type: none"><li>- setting goals and objectives of innovative projects and products.</li><li>- selection and application of effective methods of project and product</li></ul>

		<p>management.</p> <ul style="list-style-type: none"> <li>- organization of team work, control of task execution and deadlines.</li> </ul> <p><b>Masters:</b></p> <ul style="list-style-type: none"> <li>- methods of analysis and evaluation of innovative projects and products.</li> <li>- skills in using specialized tools and programs for project and product management.</li> <li>- methods of monitoring and evaluating the results of innovative projects and products.</li> </ul>
<p>PC-5 Knows the basics of managing the intellectual assets of the organization, the basics of intellectual property protection</p>	<p>PC 5.3 Possesses the skills of researching existing technologies, IT products and organizations on the market, forming proposals for the acquisition of attractive third-party assets in order to develop a series of innovative and IT products; control over the effectiveness of the use of the organization's assets in relation to a series of innovative and IT products</p>	<p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>- principles and methods of integrating innovations into projects and products</li> <li>- tools and technologies for testing and piloting innovative solutions.</li> <li>- market situation and the possibility of commercial application of innovations.</li> </ul> <p><b>Abilities:</b></p> <ul style="list-style-type: none"> <li>- implement innovative solutions in existing projects and products.</li> <li>- test and bring innovative solutions to readiness for mass production.</li> <li>- analyze the results of the implementation of innovations and adjust further actions.</li> </ul> <p><b>Masters:</b></p> <ul style="list-style-type: none"> <li>- methods and tools for testing and evaluating innovative solutions.</li> <li>- skills in adapting innovations to the requirements of the market and the customer.</li> <li>- practical skills in supporting and finalizing innovative solutions after implementation.</li> </ul>

**IV. Contents and Discipline Structure**

The volume of the discipline is 3 credits, 108 hours, including 8 hours for summative assessment

Form of summative assessment: \_\_\_\_\_ pass/ fail \_\_\_\_\_

**4.1 Discipline Contents, Structured by Topics, with Indicated Types of Classes and Allocated Academic Hours**

№	Discipline section/ Theme	Semester	Total hrs	Of these, practical training of students	Types of Educational Activities, Including Self-Study, Practical Sessions, and Workload (in hrs)				Formative Assessment Formats;  Summative Assessment Formats
					Teacher Contact Hrs			Self-Study	
					Lectures	Practical Sessions	Consultations, Self-Study Monitoring, Summative Assessment		
1	2	3	4	5	6	7	8	10	
1	Topic 1. Fundamentals of Product Innovation.	6			3	3			Test/oral questioning/
2	Topic 2. Product lifecycle management.	6			3	3			Test/oral questioning/
3	Topic 3. Development and implementation of innovative products.	6			3	3	2		Test/oral questioning/
4	Topic 4. Evaluation and analysis of innovative projects.	6			3	3	3		Test/oral questioning/
5	Topic 5. Innovation management strategies.	6			3	3			Test/oral questioning/

6	Topic 6. Tools and technologies to support product innovations.	6		3	3	4		Test/oral questioning/
<b>Summative assessment</b>								<b>Pass/ fail</b>
<b>Total Hours</b>			<b>108</b>	18	18	9	<b>3</b>	

#### 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 References from the list (section V)
		Type of Self-Study	Deadlines	Load (hr.)		
6	Topic 1. Fundamentals of Product Innovation.	Study of literature and methodological materials for the section of the course. Problem solving.	1-4 weeks	3	Test, oral survey	References from the list (section V)
6	Topic 2. Product lifecycle management.	Study of literature and methodological materials for the section of the course. Problem solving.	4-6 weeks	3	Test, oral survey	References from the list (section V).
6	Topic 3. Development and implementation of innovative products.	Study of literature and methodological materials for the section of the course. Problem solving.	6-8 weeks	3	Test, oral survey	References from the list (section V).
6	Topic 4. Evaluation and analysis of innovative projects.		8-10 weeks	3		

Semester	Section, Themes	Self-Study			Assessment tool	Self-Study Educational and Methodological Support References from the list (section V).
		Type of Self-Study	Deadlines	Load (hr.)		
6	Topic 5. Innovation management strategies.	Study of literature and methodological materials for the section of the course. Problem solving.	10-12 weeks	3	Test, oral survey	References from the list (section V).
6	Topic 6. Tools and technologies to support product innovations.	Study of literature and methodological materials for the section of the course. Problem solving.	12-14 weeks	3	Test, oral survey	References from the list (section V).
Total amount of student self-study in the discipline (hour)				<b>18</b>		

### 4.3. Learning Content

#### Topic 1. Fundamentals of product innovations.

The concept of product innovation. Classification of innovations (by type, level of novelty, scale of implementation). The main stages of the innovation process: idea generation, conceptual development, testing, implementation. Examples of successful product innovations in the market. Factors affecting the effectiveness of innovations: market, technological, organizational.

#### Topic 2. Product Life Cycle Management.

The concept of the product life cycle. Stages of the life cycle: implementation, growth, maturity, decline. Product management strategies at each stage of the life cycle. Methods for forecasting demand and assessing consumer preferences. Examples of using the product life cycle to optimize profit and market position.

#### Topic 3. Development and implementation of innovative products.

Methods of generating innovative ideas (brainstorming, design thinking, open innovations). Product design and prototyping. Product testing: pilot launches, collection of feedback, concept adjustments. Introduction of the product to the market, marketing strategies of innovations. Examples of successful implementation of innovations in various sectors of the economy.

#### Topic 4. Evaluation and analysis of innovative projects.

Methods for evaluating innovative projects: SWOT analysis, PEST analysis, financial and economic indicators. Criteria for the effectiveness of innovations: ROI, NPV, Payback period. Risks of innovative activities and methods for their reduction. Application of analysis of innovative projects for making management decisions.

#### Topic 5. Innovation management strategies.

Innovation strategies of the company: leadership in innovation, strategic partnership, open innovations. Mechanisms for implementing innovation strategies in the organization. Success factors of strategic innovation management. Examples of innovative leadership strategies in the market.

#### Topic 6. Tools and technologies to support product innovations.

Modern innovation management tools: platforms for collective development, project management systems, digital laboratories. Technologies for accelerated product launch (Agile, Lean Startup). Use of analytical and digital tools for monitoring and evaluating innovative activity. Examples of the use of tools and technologies to support innovation in companies.

#### 4.3.1. List of Practical Sessions

№	Theme Number	Seminars, Practical and Laboratory Work	Load (hr.)		Assessment Tool	Developed Competencies (Indicators)
			Total hrs	Including Practical Sessions		
1	2	3	4	5	6	7
1	1	The concept of product innovation. Classification of innovations (by type, level of novelty, scale of implementation). The main stages of the innovation	3	---	Test, oral survey	PC 2.2 PC 5.3

№	Theme Number	Seminars, Practical and Laboratory Work	Load (hr.)		Assessment Tool	Developed Competencies (Indicators)
			Total hrs	Including Practical Sessions		
		process are: idea generation, conceptual development, testing, implementation. Examples of successful product innovations in the market. Factors influencing the effectiveness of innovations: market, technological, organizational.				
2	2	The concept of the product life cycle. Stages of the life cycle: introduction, growth, maturity, decline. Product management strategies at each stage of the life cycle. Methods for forecasting demand and assessing consumer preferences. Examples of using the product lifecycle to optimize profits and market position.	3	---	Test, oral survey	PC 2.2 PC 5.3
3	3	Methods of generating innovative ideas (brainstorming, design thinking, open innovations). Product design and prototyping. Product testing: pilot launches, feedback collection, concept adjustments. Introduction of the product to the market,	3	---	Test, oral survey	PC 2.2 PC 5.3

№	Theme Number	Seminars, Practical and Laboratory Work	Load (hr.)		Assessment Tool	Developed Competencies (Indicators)
			Total hrs	Including Practical Sessions		
		marketing strategies of innovations. Examples of successful implementation of innovations in various sectors of the economy.				
4	4	Methods for evaluating innovative projects: SWOT analysis, PEST analysis, financial and economic indicators. Criteria for the effectiveness of innovations: ROI, NPV, Payback period. Risks of innovation activity and methods of their reduction. Application of Analysis of Innovative Projects for Managerial Decision-Making	3		Test, oral survey	PC 2.2 PC 5.3
5	5	Innovative strategies of the company: leadership in innovation, strategic partnership, open innovation. Mechanisms for implementing innovation strategies in the organization. Success factors of strategic innovation management. Examples of innovative market leadership strategies.	3		Test, oral survey	PC 2.2 PC 5.3
6	6	Modern innovation management tools: platforms for	3		Test, oral survey	PC 2.2 PC 5.3

№	Theme Number	Seminars, Practical and Laboratory Work	Load (hr.)		Assessment Tool	Developed Competencies (Indicators)
			Total hrs	Including Practical Sessions		
		collective development, project management systems, digital laboratories. Technologies for accelerated product launch (Agile, Lean Startup). Use of analytical and digital tools to monitor and evaluate innovation activity. Examples of the use of tools and technologies to support innovation in companies.				

#### 4.3.2. List of topics (questions) assigned to students for self-study

№	Theme	Task	Competency	Indicators
1	2	3	4	5
1	Topic 1. Fundamentals of Product Innovation.	Reading literature and methodological materials on the topic, studying the basic concepts and tools, solving problems.	PC 2 PC 5	PC 2.2 PC 5.3
2	Topic 2. Product lifecycle management.	Reading literature and methodological materials on the topic, studying the basic concepts and tools, solving problems.	PC 2 PC 5	PC 2.2 PC 5.3
3	Topic 3. Development and implementation of innovative products.	Reading literature and methodological materials on the	PC 2 PC 5	PC 2.2 PC 5.3

<b>№</b>	<b>Theme</b>	<b>Task</b>	<b>Competency</b>	<b>Indicators</b>
		topic, studying the basic concepts and tools, solving problems.		
4	Topic 4. Evaluation and analysis of innovative projects.	Reading literature and methodological materials on the topic, studying the basic concepts and tools, solving problems.	<b>PC 2</b> <b>PC 5</b>	<b>PC 2.2</b> <b>PC 5.3</b>
5	Topic 5. Innovation management strategies.	Reading literature and methodological materials on the topic, studying the basic concepts and tools, solving problems.	<b>PC 2</b> <b>PC 5</b>	<b>PC 2.2</b> <b>PC 5.3</b>
6	Topic 6. Tools and technologies to support product innovations.	Reading literature and methodological materials on the topic, studying the basic concepts and tools, solving problems.	<b>PC 2</b> <b>PC 5</b>	<b>PC 2.2</b> <b>PC 5.3</b>

#### **4.4. Guidelines for Organizing Student Self-Study**

Independent work of students is carried out using e-learning and distance learning technologies. Educational and methodological materials for self-study are available to students through electronic library systems and the Hecadem Internet learning system, which presents materials of lectures and practical tasks, interactive forms of training, examples of tasks. Each student receives authorized access to the system. The Hecadem Internet Learning System is a platform for distance learning and learning using digital technologies of the Baikal International Business School of ISU. Available at: <https://edu.buk.irk.ru>.

Independent work consists of:

- in the student's independent preparation for the lecture – reading the notes of the previous lecture, watching the video version of the lecture (if any). This helps to better understand the material of the new lecture, relying on previous knowledge;
- in preparation for practical classes on the main and additional sources of literature;
- independent study of individual topics or issues from textbooks or manuals, from sources on the Internet and on the electronic portal of the university;
- in preparation for current control and summative assessment.

Control over independent work is carried out when the student performs tasks from the fund of assessment materials of the discipline. When performing independent work, the student must also take into account the criteria for evaluating the completed task (section 8 of this program). In the course of independent work control, both the actual knowledge, skills and abilities of students are assessed, as well as the depth of understanding and the ability to isolate and interpret integral semantic structures, as well as the skills of independent search for the necessary information on the topic of the lesson and its critical assessment.

## V. Educational, Methodological, and Information Support for the Discipline

### a) Required Reading

1. Brazhnikov, M. A. Management of Changes: A Textbook for Higher Educational Institutions / M. A. Brazhnikov, I. V. Khorina. — 2nd ed., revised and supplemented — Moscow : Yurayt Publishing House, 2025. — 223 p. — (Higher Education). — ISBN 978-5-534-14483-3. — Text : electronic // Educational platform Yurayt [site]. — URL: <https://urait.ru/bcode/567508>
2. Chernysheva, A. M. Product Policy Management: Textbook and Practicum for Higher Educational Institutions / A. M. Chernysheva, T. N. Yakubova. — Moscow : Yurayt Publishing House, 2025. — 182 p. — (Higher Education). — ISBN 978-5-534-16620-0. — Text : electronic // Educational platform Yurayt [site]. — URL: <https://urait.ru/bcode/561067>
3. Chernysheva, A. M. Product Management: Textbook and Practicum for Higher Educational Institutions / A. M. Chernysheva, T. N. Yakubova. — Moscow : Yurayt Publishing House, 2025. — 368 p. — (Higher Education). — ISBN 978-5-534-16619-4. — Text : electronic // Educational platform Yurayt [site]. — URL: <https://urait.ru/bcode/560140>

### We also recommend:

...k.ru are electronic course materials posted in the system of differentiated Internet learning of the Baikal International  
...l.  
...hnet.ru/ej.phtml?option\_lang=rus – All-Russian portal Math-Net.Ru (electronic journals, information system)  
Yudalevich. Solving Economic Problems Using the MS Excel Add-in "Search for a Solution": Method. Instructions  
N.V. Yudalevich. – Irkutsk : ISU Publishing House, 2019. – 44 p.  
M. Vysshaya matematika dlya resheniya ekonomicheskikh zadach [Higher mathematics for solving economic  
...ual / V. M. Chernyshev. - Irkutsk : ISU Publ., 2015. - 198 p.- ISBN 9785962412443

### b) Databases, Search and Reference Systems, and Information Systems

1. EBS ECZ "Bibliotech". State Contract No 019 dated 22.02.2011 Bibliotech LLC. License Agreement No 31 dated 22.02.2011 Access address: <https://isu.bibliotech.ru/> Validity: from 22.11.2011 indefinitely.
2. EBS "Rukont" Contract No 98 dated 11/13/2020; Act No bK-5415 dated 11/14/20 Valid until 11/13/2021. access: <http://rucont.ru/>
3. EBS "Lan Publishing House". LLC "Lan Publishing House". Information letter No 128 dated 09.10.2017 Validity period: indefinite. Access address: <http://e.lanbook.com/>
4. EBS "National Digital Resource "Rukont". Central Design Bureau "Bibkom". Contract No 04-E-0343 dated 12.11.2021 Access address: <http://rucont.ru/>
5. EBS "Ibuku.ru/ibooks.ru". LLC "Ibux". Contract No 04-E-0344 dated 12.11.2021; Act dated 14.11.2021. Access address: <http://ibooks.ru>
6. Electronic Library System "EBS Yurayt". LLC "Electronic Publishing House Yurayt". Contract No 04-E-0258 dated 20.09.2021. Available at: <https://urait.ru/>

## VI. Material and Technical Support for the Discipline

### 6.1. Educational and laboratory equipment

Name of special rooms and rooms for independent work	Equipment of special rooms and rooms for independent work	List of licensed software. Details of the supporting document
Classroom for lecture-type classes	<p>The classroom is equipped with specialized (educational) furniture for 48 students and technical teaching aids that serve to present educational information to a large audience.</p> <p>1. PC HP Elite 8300 SFF i5 3470/4Gb/1Tb/DVD RW/kb/m/DOS/Solenoid Lock and Hood Sensor (RUS) 2. Monitor Viewsonic TFT 20" VA2014WM glossy-black 5ms 2000:1 250cd M/M 3. Projector Epson EB-18304. Genius SP-S110 Active Speakers Black 5. Aten VS92A Video Splitter 2-port VGA</p> <p>It is equipped with educational and visual aids and electronic presentations that provide thematic illustrations on all topics specified in the work program of the discipline</p>	<p>BASIC SOFTWARE INSTALLATION KIT: Office 2007 Russian OpenLicensePack NoLevel AcademicEdition – agreement with SoftLine Trade Tr026664 dated 17.05.2007 Project Standard 2007, Access 2007 – Academic cooperation programs with Microsoft DreamSpark Premium Electronic Software Delivery. – Agreement with CJSC "SoftLine Trade" Tr000023480 dated 19.05.2015 Windows Operating Systems for Licensed OEM Pre-Installation Programs, Academic Cooperation Programs with Microsoft MSDN AA.- Agreement with CJSC "SoftLine Trade" Tr017431 dated 15.05.2008 Windows Operating Systems for Licensed OEM Pre-Installation Programs, Academic Cooperation Programs with Microsoft DreamSpark Premium Electronic Software Delivery. – agreement with CJSC "SoftLine Trade" Tr000031723 dated 05.08.2015 Anti-virus programs - Rights to computer programs drWeb Server Security complex protection 120PC (1 license per year) migration with additional purchase (LBW-BC-12M-120:119-C4) – agreement with CJSC "SoftLine Trade" 13982/MOS2957 dated 22.01.2016 Archivers WinRAR: 3.x: Standard License - for legal entities 100-199 licenses – agreement with CJSC "SoftLine Trade" No15422/IRK11 dated 05.02.2010 Network client part Rights to computer programs Windows Server CAL 2012 Russian OLP NL Akademic Edition Device CAL 120 licenses – agreement with CJSC "SoftLine Trade" 13512/MOS2957 dated 29.10.2015 Firewall, Proxy functionality - Right to use computer programs Traffic Inspector GOLD preferential – agreement with CJSC "SoftLine Trade" Tr044356 dated 27.08.2013 Right to use computer programs Extension of Traffic Inspector GOLD Special for 1 year – agreement with CJSC "SoftLine Trade" Tr000112196 dated 29.09.2016</p>
Classroom for seminar-type classes	<p>The auditorium is equipped with specialized (educational) furniture for 48</p>	<p>BASIC INSTALLATION KIT: Office 2007 Russian OpenLicensePack NoLevel AcademicEdition – agreement with SoftLine Trade Tr026664 dated 17.05.2007 Project Standard 2007, Access 2007 – Academic cooperation programs with Microsoft DreamSpark Premium Electronic</p>

	<p>students and technical teaching aids that serve to present educational information to a large audience</p> <p>The demonstration kit includes: 1.PC HP Elite 8300 SFF i5 3470/4Gb/1Tb/DVD RW/kb/m/DOS/Solenoid Lock and Hood Sensor (RUS)2. Monitor Viewsonic TFT 20" VA2014WM glossy-black 5ms 20 00:1 250cd M/M3. Projector Epson EB-18304. Genius SP-S110 Active Speakers Black5. Aten VS92A Video Splitter 2-port VGA</p>	<p>Software Delivery. –agreement with SoftLine Trade CJSC Tr000023480 dated 19.05.2015 Windows operating systems under licensed OEM preinstallation programs, Academic cooperation programs with Microsoft MSDN AA.- agreement with CJSC "SoftLine Trade" Tr017431 dated 15.05.2008 Windows operating systems under licensed OEM preinstallation programs, Academic cooperation programs with Microsoft DreamSpark Premium Electronic Software Delivery. – agreement with CJSC "SoftLine Trade" Tr000031723 dated 05.08.2015 Anti-Virus Programs - Rights to computer programs drWeb Server Security complex protection 120PC (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 License - for legal entities 100-199 licenses – agreement with CJSC "SoftLine Trade" No15422/IRK11 dated 05.02.2010 Network client part Rights to computer programs Windows Server CAL 2012 Russian OLP NL Akademic Edition Device CAL 120 licenses – agreement with CJSC "SoftLine Trade" 13512/MOS2957 dated 29.10.2015 Firewall, functionality Proxy - Right to use computer programs Traffic Inspector GOLD preferential – agreement with CJSC "SoftLine Trade" Tr044356 dated 27.08.2013 Right to use computer programs Extension of Traffic Inspector GOLD Special for 1 year – agreement with CJSC "SoftLine Trade" Tr000112196 dated 29.09.2016</p>
<p>Auditorium for group and individual consultations, current control and summative assessment</p>	<p>The classroom is equipped with specialized (educational) furniture for 11 students, 5 workplaces, equipped with computers with Internet connection and access to the EIOS of the Federal State Budgetary Educational Institution of Higher Education "ISU". 1. 5 Workstations HP compad dc7800SFF Dual Core PE-2180, 4 Gb DDR2 PC6400, 160GB SATA 3.0 HDD2. LCD Monitor</p>	<p>BASIC SOFTWARE INSTALLATION KIT:Office 2007 Russian OpenLicensePack NoLevel AcademicEdition – agreement with SoftLine Trade CJSC Tr026664 dated 17.05.2007 Project Standard 2007, Access 2007 - Academic cooperation programs with Microsoft DreamSpark Premium Electronic Software Delivery. –agreement with SoftLine Trade CJSC Tr000023480 dated 19.05.2015 Windows operating systems under licensed OEM preinstallation programs, Academic cooperation programs with Microsoft MSDN AA.- Agreement with CJSC "SoftLine Trade" Tr017431 dated 15.05.2008 Windows operating systems under licensed OEM pre-installation programs, Academic cooperation programs with Microsoft DreamSpark Premium Electronic Software Delivery. – agreement with CJSC "SoftLine Trade" Tr000031723 dated 05.08.2015 Anti-virus programs - Rights to computer programs drWeb Server Security complex protection 120PC (1 license per year) migration with additional purchase(LBW-BC-12M-120:119-C4) – agreement with CJSC "SoftLine Trade" 13982/MOS2957</p>

	<p>17.0" ViewSonic "VA703m" 1280x1024, 8mc, TCO"03, Silver-Black (D-Sub, MM)3. Printer Hewlett-Packard LaserJet 3055 All-in-One Multifunction Device, one piece.</p>	<p>dated 22.01.2016Archivers WinRAR: 3.x: Standard License - for legal entities 100-199 licenses – agreement with CJSC "SoftLine Trade" No15422/IRK11 dated 05.02.2010Network client part Rights to computer programs Windows Server CAL 2012 Russian OLP NL Akademik Edition Device CAL 120 licenses – agreement with CJSC "SoftLine Trade" 13512/MOS2957 dated 29.10.2015Firewall, Proxy functionality - Right to use computer programs Traffic Inspector GOLD preferential – agreement with CJSC "SoftLine Trade" Tr044356 dated 27.08.2013Right to use computer programs Extension of Traffic Inspector GOLD Special for 1 year – agreement with CJSC "SoftLine Trade" Tr000112196 dated 29.09.2016</p>
<p>Room for independent work of students</p>	<p>It is equipped with specialized (educational) furniture for 10 students, equipped with computer equipment connected to the Internet and provided with access to the EIOS of ISU</p> <p>1. Think Centre M80 Series SFF System Unit Included: 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</p>	<p>BASIC SOFTWARE INSTALLATION KIT:Office 2007 Russian OpenLicensePack NoLevel AcademicEdition – agreement with SoftLine Trade Tr026664 dated 17.05.2007Project Standard 2007, Access 2007 – Academic cooperation programs with Microsoft DreamSpark Premium Electronic Software Delivery. – Agreement with CJSC "SoftLine Trade" Tr000023480 dated 19.05.2015 Windows Operating Systems for Licensed OEM Pre-Installation Programs, Academic Cooperation Programs with Microsoft MSDN AA.- Agreement with CJSC "SoftLine Trade" Tr017431 dated 15.05.2008 Windows Operating Systems for Licensed OEM Pre-Installation Programs, Academic Cooperation Programs with Microsoft DreamSpark Premium Electronic Software Delivery. – Agreement with CJSC "SoftLine Trade" Tr000031723 dated 05.08.2015Anti-Virus Programs - Rights to computer programs drWeb Server Security, complex protection 120PC (1 license per year)</p>
	<p>/DVD RW - 10pcs2. LCD Monitor - 20.0 ViewSonic "VA2013w" 1600x900 Monitor, 5mc, TCO 03, Black (D-Sub) - 10pcs3. HP LaserJet 5000N, A3, 22ppm, 32 MB, 250&amp;500 sheet feeder, JetDirect 615n prn svr4. HP LaserJet 5100th, A3,</p>	<p>migration with additional purchase (LBW-BC-12M-120:119-C4) – agreement with CJSC "SoftLine Trade" 13982/MOS2957 dated 22.01.2016 Archivers WinRAR: 3.x: Standard License - for legal entities 100-199 licenses – agreement with CJSC "SoftLine Trade" No15422/IRK11 dated 05.02.2010 Network client part Rights to computer programs Windows Server CAL 2012 Russian OLP NL Akademik Edition Device CAL 120 licenses – agreement with CJSC "SoftLine Trade" 13512/MOS2957 dated 29.10.2015 Firewall, Proxy functionality - Privileged right to use Traffic Inspector GOLD computer programs – agreement with CJSC "SoftLine Trade" Tr044356 dated 27.08.2013 Right to use computer programs Extension of Traffic</p>

	22ppm, 32 MB, 250&500 sheet feeder, JetDirect 615n prn svr	Inspector GOLD Special for 1 year – agreement with CJSC "SoftLine Trade" Tr000112196 dated 29.09.2016
--	------------------------------------------------------------	-------------------------------------------------------------------------------------------------------

## 6.2. Software

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

1. Basic installation kit: Office 2010 Services for granting the right to use Microsoft Desktop Edu ALNG LicSAPk OLV E 1Y Acdmc Ent., 39 licenses for BSBS ISU. Contract No 03-K-1131 dated 29.11.2021 KOSGU 226.4
2. Project Standard 2007, Access 2007 – ISU Azure Dev Tools for Teaching subscription (Visio, Projekt) 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, Projekt) 1 year. Microsoft Corporation, One Microsoft Way, Redmond, WA 98052. Expiration Date March 31, 2023.
4. Operating systems Windows'7, Windows'10 Services for granting the right to use the program Microsoft Desktop Edu ALNG LicSAPk OLV E 1Y Acdmc Ent., 39-licenses for BMBS ISU. Contract No 03-K-1131 dated 29.11.2021 KOSGU 226.4
5. Anti-virus programs - Dr.Web renewal Contract No Tr000582689/03-E-0043 dated February 05, 2021 Invoice No Tr000582689 dated February 08, 2021
6. WinRAR Archivers: 3.x: Standard Licence - for legal entities 100-199 licenses - annex. No1 to contract No15422/IRK11 of CJSC "SoftLine Trade" dated 05.02.2010
7. Network client part Rights to computer programs Windows Server CAL 2012 Russian OLP NL Akademic Edition Device CAL 120 licenses - account Tr000051059 CJSC "SoftLine Trade" dated 27.10.2015
8. Firewall, Proxy functionality - Right to use computer programs Traffic Inspector GOLD preferential account Tr005456 CJSC "SoftLine Trade" dated 27.08.2013
9. Traffic Inspector GOLD Special\* for 5 years Contract RSZ-0000276 dated 16.11.2021 KOSGU 226.4 License renewal

## 6.3. Technical and Electronic Learning Tools

Multimedia tools and other equipment for presentations of educational material:

1. HP ElliteDesk 800 G4 SFF Intel Core i5 8500(3Ghz)/8192Mb/1000Gb/DVDrw/war 3y/W10Pro +V2 Desktop. ViewSonic 21 Monitor, 5" VA2245a - LED [LED, 1920x1080, 10M: 1 5ms,170gor, 160ver, D-Sub]3. Projector Nec M420X LCD 4200ANSI Lm XGA 2000:1 lamp 3500h. Eco modeHDMI USB Viewer RJ-45 10W 3.6 kg4. Jetbalance JB-115U 2.0 black speakers (4W)5. Video signal splitter Aten VS92A 2-port VGAWead of licensed software used:1. Office 2010 under the program of academic cooperation with Russian Microsoft Desktop Education AllNg License/Software Assurance Pack Academic OLV 1License LevelEEnterprise2. Project

Standard 2007, Access 2007 – under the program of academic cooperation with Microsoft DreamSpark Premium Electronic Software Delivery.3. Microsoft Project Professional 2010, Microsoft Visio Professional 2010 under the program of academic cooperation with Microsoft Imagine Standard Electronic Software Delivery with the assistance of the Central Research Center of ISU.

## VII. Education Technologies

Educational technologies used in teaching the discipline:

- lecture and seminar credit system;
- analysis of situations (tasks, examples);
- learning in cooperation (teamwork, group work);
- information and communication.

Distance learning technologies used in teaching the discipline are implemented with the help of the differentiated Internet learning system of the BMBS ISU "Gekadem".

**Names of the topics of classes with an indication of the forms / methods / technologies of teaching:**

<b>№</b>	<b>Class Topic</b>	<b>Session Type</b>	<b>Teaching Format / Methods / Technologies (Distance &amp; Interactive)</b>	<b>Hourse</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Topic 1. Fundamentals of Product Innovation.	Lecture	presentation, Discussion	3
2	Topic 1. Fundamentals of Product Innovation.	Practical lesson	test, oral questioning	3
3	Topic 2. Product lifecycle management.	Lecture	presentation, Discussion	3
4	Topic 2. Product lifecycle management.	Practical lesson	test, oral questioning	3
5	Topic 3. Development and implementation of innovative products.	Lecture	presentation, Discussion	3
6	Topic 3. Development and implementation of innovative products.	Practical lesson	test, oral questioning	3
7	Topic 4. Evaluation and analysis of innovative projects	Lecture	presentation, Discussion	3
8	Topic 4. Evaluation and analysis of innovative projects	Practical lesson	test, oral questioning	3
9	Topic 5. Innovation management strategies.	Lecture	presentation, Discussion	3
10	Topic 5. Innovation management strategies.	Practical lesson	test, oral questioning	3
11	Topic 6. Tools and technologies to support product innovations.	Lecture	presentation, Discussion	3

12	Topic 6. Tools and technologies to support product innovations.	Practical lesson	test, questioning	oral	3
<b>Total hours:</b>					<b>36</b>

### VIII. Materials for Formative and Summative Assessment

**Materials for formative and summative assessment of students' knowledge:**

<b>№</b>	<b>Type of assessment</b>	<b>Topics (sections) checked</b>	<b>Assessed competencies indicators</b> /
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1	<b>Formative assessment</b>		
1.1	Online test in the Hecadem system of differentiated Internet learning	Topic 1. Fundamentals of Product Innovation.	<b>PC 2.2</b> <b>PC 5.3</b>
1.2	Online test in the Hecadem system of differentiated Internet learning	Topic 2. Product lifecycle management.	<b>PC 2.2</b> <b>PC 5.3</b>
1.3	Online test in the Hecadem system of differentiated Internet learning	Topic 3. Development and implementation of innovative products.	<b>PC 2.2</b> <b>PC 5.3</b>
1.4	Online test in the Hecadem system of differentiated Internet learning	Topic 4. Evaluation and analysis of innovative projects.	<b>PC 2.2</b> <b>PC 5.3</b>
1.5	Online test in the Hecadem system of differentiated Internet learning	Topic 5. Innovation management strategies.	<b>PC 2.2</b> <b>PC 5.3</b>
1.6	Online test in the Hecadem system of differentiated Internet learning	Topic 6. Tools and technologies to support product innovations.	<b>PC 2.2</b> <b>PC 5.3</b>
2	<b>Summative assessment</b>		<b>PC 2.2</b> <b>PC 5.3</b>
2.1	Pass/ fail	All course topics	<b>PC 2.2</b> <b>PC 5.3</b>

#### **Formative Assessment materials** **Sample questions from online tests**

<p>1. What is Product Innovation?</p> <p>A) Changing the packaging of the product</p> <p>B) Creation of a new or improved product</p> <p>C) Product Price Reduction</p> <p>D) Conducting an advertising campaign</p> <p>Correct answer: B</p> <p>2. How are innovations classified by the level of novelty?</p> <p>A) Local, regional</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- B) Radical, improving
- C) Internal, external
- (D) Strategic, operational

Correct answer: B

3. Which stage of the product life cycle comes first?

- A) Growth
- B) Implementation
- C) Maturity
- (D) Recession

Correct answer: B

4. What strategy is used in the product growth phase?

- A) Cost reduction
- B) Market expansion
- C) Product Retirement
- (D) Reduction in production

Correct answer: B

5. What are the methods of generating innovative ideas?

- A) SWOT Analysis
- B) Brainstorming
- C) Financial reporting
- (D) Systematization of processes

Correct answer: B

6. What is product prototyping?

- A) Creating a test version of the product
- B) Calculation of the cost of the product
- C) Conducting market research
- D) Logistics planning

Correct answer: A

7. What does product testing mean?

- A) Production of advertising materials
- B) Proof of concept and feedback
- C) Calculation of profit
- D) Competitor analysis

Correct answer: B

8. What indicators are used to evaluate an innovative project?

- A) ROI, NPV, Payback period
- B) EBITDA, turnover ratio
- C) Share price, dividends
- (D) Monetary expenditures only

Correct answer: A

9. What is the product life cycle?

- A) Product lifespan from development to market launch
- B) Service life of the equipment
- C) Marketing campaign development time
- D) Lifetime of an employee of the company

Correct answer: A

10. What factors affect the success of product innovation?

- A) Market, technological, organizational
- B) Only technological
- C) Marketing Only
- D) Financial only

Correct answer: A

11. What are the risks of innovation activity?

- A) Low demand for the product
- B) High Sales
- C) Increase in profits
- D) Stable market position

Correct answer: A

12. Which method of analysis of an innovative project takes into account external factors?

- A) SWOT Analysis
- B) PEST Analysis
- C) Financial analysis
- (D) Balance sheet

Correct answer: B

13. What approach accelerates the time to market?

- A) Lean Startup
- B) Traditional planning
- C) Classical accounting
- D) Long-term investment

Correct answer: A

14. What technologies support product innovation?

- A) Digital laboratories, collaborative development platforms
- B) Storage systems
- (C) Transport systems
- (D) Payroll systems

Correct answer: A

15. What is feedback in the product testing process?

- A) Accounting reports
- B) Product information from users
- C) Comparison of competitors' prices
- D) Financial evaluation of the project

Correct answer: B

## **Assessment materials for summative assessment in the pass/ fail format**

### **Approximate list of theoretical questions**

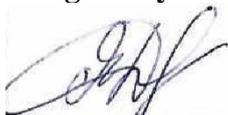
1. What is product innovation and how does it differ from technological innovation? Give examples of radical and incremental innovations.
2. What are the different types of product innovation? Explain the difference between innovation that improves a product and innovation that creates a new product.
3. Describe the stages of the product life cycle and the role of innovation at each stage. How can innovation extend the life cycle of a product?
4. What strategies are used to bring product innovations to market? Provide examples of successful implementation.
5. Describe the methods of generating ideas: brainstorming, Delphi, SCAMPER, open innovation. What are the pros and cons of each method?
6. What is product prototyping and why is it necessary? What types of product testing are there?
7. What tools for analyzing consumer needs are used to develop innovations? Examples of qualitative and quantitative methods.

8. How does competitor analysis affect the development of new product solutions? What metrics and metrics are important to consider?
9. What are the key stages of project management for the introduction of an innovative product? How to evaluate the effectiveness of the project?
10. What sources of funding are available for innovative products? What are the risks associated with investing in innovation?
11. How to calculate the payback of an innovative product? Examples of indicators: ROI, NPV, payback period.
12. What internal and external obstacles can hinder the implementation of innovations? How to deal with them?
13. How does innovation create a competitive advantage for a company? Give examples of well-known products.
14. How does digitalization affect the development of new products? Examples of innovations in digital services and products.

**Evaluation criteria for formative and summative assessment:**

<b>Evaluation criteria</b>	<b>Evaluation</b>
Less than 60% of correct answers	2 (unsatisfactory)
Correct answers are at least 60% and at least 70%	3 (Satisfactory)
Correct answers are more than 70% and at least 85%	4 (good)
More than 85% of correct answers	5 (excellent)

**Designed by:**



(signature)

Senior Lecturer Y.O. Dunaeva

(position)

(FULL NAME)

The program is compiled in accordance with the requirements of the Federal State Educational Standards of Higher Education for the major 27.03.05 Innovatics, specialization "Management of innovative and IT projects and products".

The program was approved at a meeting of the Department of Strategic and Financial Management on March 21, 2025, Protocol No 9.

Head of the Department



N.B. Grosheva

This program may not be reproduced in any form without the prior written permission of the department-developer of the program.