MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATION OF THE REPUBLIC OF UZBEKISTAN
TASHKENT STATE UNIVERSITY OF ECONOMICS

"APPROVED"
Dean of the Faculty of Management
D.ISMAILOV
June 30, 2026

INNOVATION MANAGEMENT

CURRICULUM SYLLABUS OF THE DISCIPLINE

Bachelor's degree (full-time mode of study)

Field of knowledge:	400 000	Business, Management and Law
Field of education:	410 000	Business and Management
Direction of education:	60410800	Management

Dean
(Approved)
D.ISMAILOV

Tashkent – 2026

This syllabus was approved by the decision of the Council of the Faculty of Management (Minutes No. T-10 dated “30” June 2026).

This syllabus is presented by the Department of "Innovation Management" of Tashkent State University of Economics (Minutes of the Department Meeting No. 44 dated “26” June 2026).

Developers:

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Head of Department
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1. Subject Information

Subject/Module Code INNMAN	**Academic Year** 2026-2027	**Semester** 6	**ECTS – Credits** 5.00
Subject/Module Type Compulsory	**Language of Instruction** English	**Curriculum Sequence Number**	**Weekly Lesson Hours**

Subject Name	Total Workload (hours)	Total Classroom Activities – 60 hours, of which:			Independent Study (hours)	Course Paper
		Lecture	Practical	Lab		
Innovation management	**150**	30	30	0	**90**	-

2. Subject Content

Subject Goal – to teach the fundamental concepts, objectives, and functions of innovation management; to provide knowledge of the content, characteristics, stages, and models of the innovation process; to develop skills in organizing and designing scientific research and experimental development activities; to study the specific features of human resource management in innovative organizations; to develop an understanding of the market for scientific and technological products and the commercialization of innovations; to teach methods for utilizing innovative projects and evaluating their effectiveness.

Subject Tasks – to provide students with a comprehensive understanding of the principles, concepts, and significance of innovation management; to develop the ability to analyze, plan, and manage innovation processes within organizations; to teach methods for generating, evaluating, and implementing innovative ideas, products, and technologies; to develop skills in managing innovation projects, resources, and risks to achieve organizational objectives; to enhance students' ability to assess the effectiveness of innovation activities and support sustainable competitive advantage through innovation.

3. Prerequisites for the subject	
1.	Management, Operations Management, Quality Management

4. Learning Outcomes (LO)	
Professional Competencies:	
TN1	Critically evaluate the evolution of innovation studies and distinguish between incremental, radical, architectural, and disruptive innovation trajectories.
TN2	Analyze the National Innovation System (NIS) and the Triple Helix model to assess the collaborative roles of government, academia, and industry in contemporary economic development.
TN3	Understand the legal, economic, and operational principles of intellectual property, including the classification of intangible assets and international mechanisms for patenting and licensing.
TN4	Explain the systematic product development life cycle, from initial conceptual design and lead-user identification to commercial market introduction.
TN5	Apply the Business Model Canvas and value system analysis to map, design, and guide commercially sustainable business strategies.
Skills:	
TN6	Utilize innovation management methodologies, such as Pearson's Uncertainty Map, to strategically address organizational dilemmas and balance operational risks.
TN7	Apply systematic problem-solving methodologies, including the TRIZ framework and Design Thinking paradigm, to resolve technical contradictions and service design challenges.
TN8	Conduct rigorous market research and positioning analysis using demand forecasting and customer development models to achieve validated product–market fit.
TN9	Develop and optimize real investment portfolios by applying corporate evaluation techniques to prioritize innovation projects, allocate resources, and establish implementation sequencing within organizations.
TN10	Design comprehensive strategies for open innovation and technology transfer by balancing the integration of external knowledge networks with the strategic protection of proprietary core competencies.

5. Subject Content and Forms of Study:	Hours
Lecture (L)	**30**

5. Subject Content and Forms of Study:		Hours
M1	**Innovation in Business and Society:.** 1. Defining innovation: types, sources, and dimensions of innovation; 2. The innovation process: stages, models (linear and interactive), and key actors; 3. Innovation and technological development: the role of research and knowledge; 4. Geography of innovation: clusters, national systems, and regional dynamics; 5. Innovation and society: employment, ethics, legal aspects, and social impact.	2
M2	**Science, Technology, and Innovation Trajectories:.** 1. Studying innovations; 2. Two traditions of innovation studies: Europe and the United States; 3. Historical and contemporary innovation research; 4. Innovation and invention; 5. Examples of industrial innovations.	2
M3	**Understanding Business Model Innovation:.** 1. The concept of a business model; 2. Business Model Canvas; 3. Value systems; 4. Designing business models.	2
M4	**Technology-Push and Demand-Pull Innovation:.** 1. Technology-push and demand-pull innovation: sources and driving forces of innovation; 2. Lead users as sources of new product concepts; 3. Linear models of innovation: science-push and market-pull approaches; 4. Innovation chain models linking different stages of innovation; 5. Architectural innovation and system-level changes; 6. Integrating technology dynamics: markets, science, and technology.	2
M5	**Disruptive Innovation:.** 1. Definition and origins of disruptive innovation; 2. Clayton Christensen’s theory: low-end and new-market disruptions; 3. Differences between disruptive and sustaining innovations; 4. Why established firms often fail to respond to disruptive threats; 5. Managers’ dual responsibilities: exploitation and exploration; 6. Strategies for incumbents and new entrants in disrupted markets.	2
M6	**Managing Innovation in Organizations:.** 1. Organizations and innovation: structure, culture, and climate; 2. The innovation management dilemma: efficiency versus creativity; 3. Pearson’s uncertainty map and innovation management approaches; 4. The role of individuals in the innovation process: champions and gatekeepers; 5. Innovation management tools and techniques: stage-gate and portfolio management; 6. Formulating innovation strategy: competitive advantage and resource-based perspectives.	2
M7	**Building Corporate Innovation and Investment Portfolios:.** 1. Innovation and investment portfolio management: concepts, objectives, and functions; 2. Principles and criteria for investment decision-making in innovation; 3. Developing innovation portfolios: balancing risk and return; 4. Project classification, roadmaps, and platform product strategies; 5. Technology roadmapping as a strategic planning tool; 6. Assessing investment value and	2

5. Subject Content and Forms of Study:		Hours
	weighted average cost of capital; 7. Portfolio management: project evaluation and selection methods.	
M8	**National Innovation Systems:.** 1. The concept and significance of National Innovation Systems (NIS); 2. Components and participants of NIS: universities, firms, government, and institutions; 3. Models of national innovation systems: linear and evolutionary approaches; 4. The Triple Helix model: university–industry–government relations; 5. NIS in developed and developing economies; 6. The role of government in stimulating innovation within national innovation systems.	2
M9	**Organizing Product Development Activities:.** 1. Types and forms of innovation organizations; 2. Gatekeepers, champions, and innovators: their roles in product development; 3. Organizational design for innovation: functional, project, and matrix structures; 4. Project teams: composition, coordination, and motivation; 5. Knowledge workers and creative teams; 6. Concurrent engineering and cross-functional teamwork.	2
M10	**Open Innovation and Technology Transfer:.** 1. The meaning of open innovation: inbound, outbound, and coupled processes; 2. The open innovation paradox: balancing knowledge sharing and appropriation; 3. External technology acquisition and internal technology commercialization; 4. Mechanisms and participants of technology transfer; 5. Knowledge transfer and absorption capacity; 6. Licensing, joint ventures, strategic alliances, and corporate entrepreneurship; 7. Open innovation ecosystems and collaborative platforms.	2
M11	**The Product Development Process:.** 1. Stages of product development: from concept generation to market launch; 2. Stage-gate process: stages, gates, and decision criteria; 3. Concurrent engineering: parallel activities and cross-functional management; 4. Lean product development: reducing costs and increasing value; 5. Agile product development: iterative methods and sprint planning; 6. Managing innovation and product development projects	2
M12	**Commercialization of Scientific and Technological Products and Innovations:.** 1. Components and characteristics of innovation markets; 2. Types of patents and licenses, procedures, and strategic applications; 3. The concept and content of innovation object commercialization; 4. Commercialization strategies: licensing, spin-offs, and joint ventures; 5. Valuation of intellectual property and innovation assets; 6. International experience in innovation commercialization.	2
M13	**Protection of Innovations through Intellectual Property:.** 1. Intellectual property and intangible assets: characteristics and classification; 2. Legal foundations of intellectual property protection: patents, trademarks, copyrights, and trade secrets; 3. Patent strategies: when to patent, patent	2

5. Subject Content and Forms of Study:		Hours
	landscapes, and patent thickets; 4. Appropriate patenting strategies: commercial secrets, first-mover advantages, and innovation incentives; 5. Emerging challenges in intellectual property: open innovation, patent trolls, and piracy; 6. International experience in intellectual property protection and implementation.	
M14	**Market Research and Product Positioning:.** 1. Customer-oriented product development: understanding customers, users, and needs; 2. Market definition: segmentation, target audiences, and competitive analysis; 3. Identifying customer needs: Kano model, surveys, and interviews; 4. Product positioning: horizontal and vertical differentiation; 5. Pricing strategies and willingness to pay; 6. Demand forecasting: lead markets, diffusion models, and the Bass model.	2
M15	**Product and Service Design:.** 1. Conceptual design: problem identification and solution generation; 2. Functional analysis: identifying functions and translating requirements; 3. TRIZ methodology: inventive principles and contradiction solving; 4. Design Thinking and the innovation process: empathy, problem definition, ideation, prototyping, and testing; 5. Concept screening, selection, and evaluation methods; 6. Linking the design process with innovation processes and product architecture.	2
Practical Session (P)		**30**
A1	**Innovation in Business and Society:.** 1. Defining innovation: types, sources, and dimensions of innovation; 2. The innovation process: stages, models (linear and interactive), and key actors; 3. Innovation and technological development: the role of research and knowledge; 4. Geography of innovation: clusters, national systems, and regional dynamics; 5. Innovation and society: employment, ethics, legal aspects, and social impact.	2
A2	**Science, Technology, and Innovation Trajectories:.** 1. Studying innovations; 2. Two traditions of innovation studies: Europe and the United States; 3. Historical and contemporary innovation research; 4. Innovation and invention; 5. Examples of industrial innovations.	2
A3	**Understanding Business Model Innovation:.** 1. The concept of a business model; 2. Business Model Canvas; 3. Value systems; 4. Designing business models.	2
A4	**Technology-Push and Demand-Pull Innovation:.** 1. Technology-push and demand-pull innovation: sources and driving forces of innovation; 2. Lead users as sources of new product concepts; 3. Linear models of innovation: science-push and market-pull approaches; 4. Innovation chain models linking different stages of innovation; 5. Architectural innovation and	2

5. Subject Content and Forms of Study:		Hours
	system-level changes; 6. Integrating technology dynamics: markets, science, and technology.	
A5	**Disruptive Innovation:.** 1. Definition and origins of disruptive innovation; 2. Clayton Christensen's theory: low-end and new-market disruptions; 3. Differences between disruptive and sustaining innovations; 4. Why established firms often fail to respond to disruptive threats; 5. Managers' dual responsibilities: exploitation and exploration; 6. Strategies for incumbents and new entrants in disrupted markets.	2
A6	**Managing Innovation in Organizations:.** 1. Organizations and innovation: structure, culture, and climate; 2. The innovation management dilemma: efficiency versus creativity; 3. Pearson's uncertainty map and innovation management approaches; 4. The role of individuals in the innovation process: champions and gatekeepers; 5. Innovation management tools and techniques: stage-gate and portfolio management; 6. Formulating innovation strategy: competitive advantage and resource-based perspectives.	2
A7	**Building Corporate Innovation and Investment Portfolios:.** 1. Innovation and investment portfolio management: concepts, objectives, and functions; 2. Principles and criteria for investment decision-making in innovation; 3. Developing innovation portfolios: balancing risk and return; 4. Project classification, roadmaps, and platform product strategies; 5. Technology roadmapping as a strategic planning tool; 6. Assessing investment value and weighted average cost of capital; 7. Portfolio management: project evaluation and selection methods.	2
A8	**National Innovation Systems:.** 1. The concept and significance of National Innovation Systems (NIS); 2. Components and participants of NIS: universities, firms, government, and institutions; 3. Models of national innovation systems: linear and evolutionary approaches; 4. The Triple Helix model: university–industry–government relations; 5. NIS in developed and developing economies; 6. The role of government in stimulating innovation within national innovation systems.	2
A9	**Organizing Product Development Activities:.** 1. Types and forms of innovation organizations; 2. Gatekeepers, champions, and innovators: their roles in product development; 3. Organizational design for innovation: functional, project, and matrix structures; 4. Project teams: composition, coordination, and motivation; 5. Knowledge workers and creative teams; 6. Concurrent engineering and cross-functional teamwork.	2
A10	**Open Innovation and Technology Transfer:.** 1. The meaning of open innovation: inbound, outbound, and coupled processes; 2. The open innovation paradox: balancing knowledge sharing and appropriation; 3. External technology acquisition and internal technology commercialization;	2

5. Subject Content and Forms of Study:		Hours
	4. Mechanisms and participants of technology transfer; 5. Knowledge transfer and absorption capacity; 6. Licensing, joint ventures, strategic alliances, and corporate entrepreneurship; 7. Open innovation ecosystems and collaborative platforms.	
A11	**The Product Development Process:.** 1. Stages of product development: from concept generation to market launch; 2. Stage-gate process: stages, gates, and decision criteria; 3. Concurrent engineering: parallel activities and cross-functional management; 4. Lean product development: reducing costs and increasing value; 5. Agile product development: iterative methods and sprint planning; 6. Managing innovation and product development projects	2
A12	**Commercialization of Scientific and Technological Products and Innovations:.** 1. Components and characteristics of innovation markets; 2. Types of patents and licenses, procedures, and strategic applications; 3. The concept and content of innovation object commercialization; 4. Commercialization strategies: licensing, spin-offs, and joint ventures; 5. Valuation of intellectual property and innovation assets; 6. International experience in innovation commercialization.	2
A13	**Protection of Innovations through Intellectual Property:.** 1. Intellectual property and intangible assets: characteristics and classification; 2. Legal foundations of intellectual property protection: patents, trademarks, copyrights, and trade secrets; 3. Patent strategies: when to patent, patent landscapes, and patent thickets; 4. Appropriate patenting strategies: commercial secrets, first-mover advantages, and innovation incentives; 5. Emerging challenges in intellectual property: open innovation, patent trolls, and piracy; 6. International experience in intellectual property protection and implementation.	2
A14	**Market Research and Product Positioning:.** 1. Customer-oriented product development: understanding customers, users, and needs; 2. Market definition: segmentation, target audiences, and competitive analysis; 3. Identifying customer needs: Kano model, surveys, and interviews; 4. Product positioning: horizontal and vertical differentiation; 5. Pricing strategies and willingness to pay; 6. Demand forecasting: lead markets, diffusion models, and the Bass model.	2
A15	**Product and Service Design:.** 1. Conceptual design: problem identification and solution generation; 2. Functional analysis: identifying functions and translating requirements; 3. TRIZ methodology: inventive principles and contradiction solving; 4. Design Thinking and the innovation process: empathy, problem definition, ideation, prototyping, and testing; 5. Concept screening, selection, and evaluation methods; 6. Linking the design process with innovation processes and product architecture.	2

6. Independent Study Assignments

№	Topic / Assignment Name	Hours
1	The Role of National Innovation Systems in Enhancing Economic Competitiveness: A Comparative Analysis of Developed and Developing Countries	9
2	Open Innovation versus Closed Innovation: Strategic Implications for Sustainable Competitive Advantage in Technology-Driven Industries	9
3	Disruptive Innovation and Industry Transformation: An Analysis of Christensen’s Theory in the Era of Artificial Intelligence	9
4	The Triple Helix Model as a Framework for Innovation Ecosystem Development: Evidence from Emerging Economies	9
5	Technology Transfer and Commercialization of University Research: Challenges, Opportunities, and Best Practices	9
6	Strategic Management of Innovation Portfolios: Balancing Risk, Return, and Long-Term Organizational Growth	9
7	Intellectual Property Protection and Innovation Performance: Examining the Relationship between Patent Systems and Technological Development	9
8	Design Thinking and TRIZ as Innovation Management Tools: A Comparative Assessment of Their Effectiveness in Solving Complex Business Problems	9
9	The Impact of Digital Transformation and Industry 4.0 Technologies on Innovation Management Practices	9
10	Sustainable Innovation and Green Technologies: Managing Innovation for Environmental and Economic Value Creation	9
	Total:	**90**

Note: *Note: Independent assignments for this course (module) should be variable in nature, allowing students to choose from different types of tasks and learning activities. At least one-third of the independent assignments should be designed for collaborative work in small groups (cooperative learning), encouraging teamwork, communication, and joint problem-solving among students.*

7. Educational Technologies and Methods

lectures;
conducting and evaluating practical assignments based on real-life situations;

solving case studies and situational tasks;
writing essays, theses, and academic articles;
blitz quizzes and rapid questioning;
working in small groups;
delivering presentations;
completing and defending project work;
applying simulation and interactive learning methods;
studying real management processes through observational participation in enterprises and organizations.

8. Requirements for acquiring credits by students

For this course (module), student assessment is based on the completion of course-related learning activities, including tests and written assignments, throughout the semester. Students are evaluated using a 100-point grading system. Of the total score, 20 points are allocated for class participation, independent study assignments, and continuous assessment activities; 30 points are allocated for the midterm assessment; and 50 points are allocated for the final assessment. The final grade is determined based on the student's overall performance in these assessment components during the semester.

PROCEDURE OF ASSESSMENT OF STUDENTS' KNOWLEDGE

Types of Rating Assessment	Max. score	Assignments to be completed	Deadline for completing tasks
Current control, of which	**20**	**according to the schedule of the educational process**	
Participation in class sessions	10	depending on the nature of the subject, oral inquiry, test, interview, control work, colloquium, case study, case study or fable situation assignments, project, coursework, homework in seminars, laboratories and practical training	according to the schedule of the educational process
Independent study, of which	10	independent work of students is organized in two directions - in the auditorium and outside the auditorium	
1-independent study	2	preparation and defense of project work on one of the subjects of independent education	Submission deadline: before midterms begin

Types of Rating Assessment	Max. score	Assignments to be completed	Deadline for completing tasks
2-independent study	2	preparation and defense of project work on one of the subjects of independent education	Submission deadline: before midterms begin
3-independent study	2	preparation and defense of project work on one of the subjects of independent education	Submission deadline: before midterms begin
4-independent study	2	preparation and defense of project work on one of the subjects of independent education	Submission deadline: a week before the final inspection
5-independent study	2	preparation and defense of project work on one of the subjects of independent education	Submission deadline: a week before the final inspection
Midterm control	**30**	**in the form of a presentation (work in small groups)**	**According to the schedule of the academic academic year**
Final control	**50**	**In written form**	**According to the schedule of the academic academic year**
Total	**100**		

The total score of the student in the subject during the semester is calculated by the following formula in accordance with the established rules for each control type:
Total score=CC+MC+FC
herein:
CC – current control;
MC – midterm control
FC – final control.
where, (CC+MC)≥ 30 points; FC≥30 points are required.

Note:A student who does not get at least 60 percent (30 points) of the total points (50 points) allocated for the current control and intermediate control will not be allowed to enter the final control. Also, a student who participated in the final control and could not collect at least 60% (30 points) of the total points (50 points) allocated for

the final control (i.e. received an unsatisfactory grade) did not acquire the relevant credits in this subject. and is considered an academic debtor.

9. Criteria for assessment of students' knowledge
a) For a grade of 5 (excellent), the student's level of knowledge must meet the following: - demonstrates a comprehensive understanding of the nature and content of the course; - explains operations management topics in a scientific and logical manner without errors or inconsistencies; - effectively applies theoretical knowledge to various managerial and operational situations; - provides clear, concise, and accurate answers to the given questions; - fully masters independent assignments and practical skills required in the course; - adopts a systematic approach and ensures coherence and continuity in learning and problem-solving processes. - adopts a systematic approach and ensures coherence and continuity in learning and problem-solving processes.
b) For a grade of 4 (good), the student's level of knowledge must meet the following: - understands the nature and content of the course and does not make significant errors or inconsistencies when explaining topics; - understands the practical significance of the course; - completes assigned tasks and activities within the scope of the curriculum; - provides correct answers to questions and fully completes independent assignments; - demonstrates an effort to acquire and develop practical skills and competencies.
c) For a grade of 3 (satisfactory), the student's level of knowledge must meet the following: - has a general understanding of the course; - explains topics within a limited scope and may make some inconsistencies or errors; - completes independent assignments, but the presentation and explanation may lack clarity and coherence; - provides vague or incomplete answers to questions.
d) Under the following cases, the student's level of knowledge may be graded with an unsatisfactory grade of 2: - does not prepare adequately for classes and learning activities; - has no understanding or knowledge of the course content; - fails to complete independent assignments; - shows clear evidence of copying texts or assignments from others; - is unable to answer questions related to the course.
Note: Student performance is assessed using a 100-point grading system, consisting of 20 points for continuous assessment, 30 points for midterm assessment, and 50 points for final

assessment. The student's total score is calculated according to the following formula: TS = CA + MA + FA, where CA stands for Continuous Assessment, MA for Midterm Assessment, and FA for Final Assessment. A student who fails to achieve at least 60% of the allocated points in the continuous and midterm assessments, as well as 60% of the points allocated for the final assessment, will be considered to have an academic deficiency (academic debt).

10. References

Basic References:	
1.	Rasulov N.M. Innovatsion menejment.. [Textbook] – -T.: "PUBLISHING HIGH FUTURE" OK,, 2025. – 414 p.
2.	Рахматова М.Г Инновационный менеджмент. [Textbook] – Т.: ТашГТУ, 2023. – 390 p.
3.	Cantamessa, M., Montagna, F. Management of Innovation and Product Development Integrating Business and Technological Perspectives.. [Textbook] – The Authors, 2023. – 690 p.
Additional References:	
1.	Chesbrough, H. (2003).The era of open innovation. Sloan Management Review, 44(3): 35-41
2.	Fagerberg, J., Verspagen, B. (2009). Innovation studies — The emerging structure of a new scientific field. Research Policy, 38(2): 218- 233.
3.	Khotamov, Sh. Mustafakulov, M. Isakov, A. Abduvaliev. Enterprise economy and innovation management. Study guide. - T.: Economy, 2019, 483 pages.
Internet resources:	
1.	www.gov.uz - the government portal of the Republic of Uzbekistan.
2.	www.lex.uz - National database of information on legal documents of the Republic of Uzbekistan.
3.	https://mininnovation.uz - Ministry of Innovative Development of the Republic of Uzbekistan.
4.	www.mf.uz - Ministry of Finance of the Republic of Uzbekistan.

11. Academic Requirements

The interaction between the teacher and the student should be sincere and unbiased, the student sends the assignments he has completed independently via

e-mail or educational platform in the prescribed order and receives the answer in the same order. Assignments that are not completed within the specified period will not be accepted again. The teacher will check the assignments completed by the student in the anti-plagiarism program, the assignments with a level of originality below 70 percent will not be accepted for assessment. It is possible to check the completed assignment of the student up to 2 times in the anti-plagiarism program, if the result is not up to the required level, the work will not be accepted.

12. Application of the program to other study modes

This syllabus has been developed for the full-time mode of study. Based on this syllabus, corresponding working curricula (course syllabi) will be developed for part-time, evening, and distance learning modes of study.