Course title	Project Management (ECTS 4)
Subject/module code	LB1204 (Master's programme)
Semester(s) in which the course is taught	2nd semester (2026–2027 academic year)
Assigned instructor	Pirnazarov I., acting associate professor, Department of Engineering Communications
Language of instruction	Uzbek
Course type	Compulsory
Study workload (including independent study)	**Total workload – 120 hours** **Contact hours – 36** Lecture hours – 18 Laboratory hours – none Practical class hours – 18 **Independent study – 84 hours** Course work – none
ECTS	4
Course aims and objectives / learning outcomes	**The aim of the course is to develop in master's students theoretical knowledge, practical skills and competences in managing projects for the construction and installation of engineering communication systems (water supply and sewerage, heat and gas supply, ventilation) from concept to commissioning; in developing specialised planning methods; in organising the monitoring of contractors and work schedules; and in modern methods of managing project costs, quality and risks; and to raise their level of specialisation in economic and managerial activity in a market economy.** **The objectives of the course are to introduce master's students to international project management standards (PMBOK, ISO 21502) and modern methodologies (traditional, Agile, hybrid); to teach them to prepare cost-effective investment projects and to carry out their financial and economic appraisal and analysis; to apply network planning methods (the critical path method, PERT, Gantt charts); and to develop skills in managing the project team, communications and conflicts. The course builds on economic theory, construction economics and management, investments, and the design of engineering communications.** **Prerequisites: Economic Theory (bachelor's level); Construction Economics and Management (bachelor's level); (MKZL1206) Modern Design of Engineering Communications.** **Learning outcomes:** **Professional competencies:** 1. Has a thorough command of the essence, international standards and modern methodologies of project management, and knows the project management system and the main directions of investment policy in Uzbekistan. 2. Is able to set specific and measurable objectives to be achieved through a project, justify the need for the project, and identify the project participants (client, investor, contractor, project team, stakeholders) and their roles. 3. Is able to plan a project in terms of time (network diagram, critical path, Gantt chart), determine the amount and timing of the required financial resources, and select an appropriate methodology (traditional, Agile or hybrid). 4. Has the skills to prepare investment projects, carry out their technical, environmental, institutional, financial and economic analysis, and assess uncertainty and risks. **Skills:** 5. Monitors project quality, costs and implementation schedules. 6. Manages the project team, communications and conflicts, and

	makes well-founded management decisions.
Course content (topics)	**I. Main theoretical section (Lectures) – 18 hours** **Topic 1: Introduction. The essence of project management. (2 hours)** [1, 4] **Topic 2: Project management trends in Uzbekistan. (2 hours)** [1, 2] **Topic 3: The current state of project management methodology. (2 hours)** [1, 3] **Topic 4: Strategic project management: basic concepts and conceptual foundations. (2 hours)** [1, 4] **Topic 5: Business-structural projects. (2 hours)** [1, 2] **Topic 6**: The organisation's project management system and managing projects in terms of time parameters. (2 hours)** [1, 3, 4] **Topic 7: Managing project communications and quality. (2 hours)** [1, 3] **Topic 8**: Managing project costs, risks and human resources. (2 hours)** [1, 2, 4] **Topic 9: Managing project conflicts. Managing innovation projects. (2 hours)** [1, 3] ** Topics developed on the basis of the curricula of universities ranked in the TOP-300 of the QS and THE rankings: National University of Singapore (NUS; QS – 8, THE – 17), MSc (Project Management): PM5101 Project Management, PM5107 Time and Cost Management (network planning, management of project schedules and costs) – Topic 6; Massachusetts Institute of Technology (MIT; QS – 1, THE – 2), course 1.040 "Project Management" (project finance, project evaluation, risk analysis, project organisation) – Topic 8. **II. Guidelines and recommendations for practical classes – 18 hours** Practical classes consolidate the theoretical material of the lectures and develop master's students' skills in preparing and scheduling projects, using project management tools, and carrying out the technical, environmental, institutional, financial, economic and risk analysis of investment projects. **Recommended practical topics (2 hours each):** 1. Preparing a project and the stages of its management process. 2. Tools used in project management (Gantt chart, network diagram, MS Project). 3. The concept of investment project analysis and the preparation of investment projects. 4. Main methods of the financial and economic appraisal of investment projects; the business plan. 5. Competing (alternative) investments and project selection. 6. Technical and environmental analysis of projects. 7. Institutional and social analysis. 8. Financial and economic analysis (NPV, IRR, payback period). 9. Analysis of uncertainty and risk in investment projects. **III. Laboratory classes**

	Laboratory classes are not provided for in the curriculum of this course. **IV. Independent study – 84 hours** Independent study develops master's students' ability to learn autonomously, to work with scientific and technical literature, regulatory documents and electronic resources, and to apply the knowledge gained in research and professional activity. Assignments are completed under the teacher's guidance in traditional or electronic form. **Topics recommended for independent study (14 hours each):** 1. The essence and directions of Uzbekistan's investment policy and its improvement. History of project management. 2. Sixteen project management methodologies and their application in engineering communication projects. 3. Basic procedures of the planning process. The project implementation schedule. 4. Financial and economic appraisal in the selection of investment projects. Financial analysis of the organisation operating the project. 5. Classification of uncertainties and risks. Classification of project quality costs. 6. Motivation of the project team. Stages of introducing a project management system in an enterprise. **V. Teaching technologies and methods** – lectures; – interactive case studies; – seminars (logical thinking, rapid question-and-answer sessions); – group work; – preparing presentations; – individual projects; – team projects for joint work and defence.
Student assessment	Student assessment is based on the level of mastery of the learning materials during the semester and final assessment (tests, assignments, and written and oral work). Throughout the "Project Management" course, students are assessed on a 100-point scale. Of this total, 50 points are allocated to current and midterm assessment (60% of these 50 points for ongoing assessment and independent study, and 40% for the midterm assessment), while 50 points are allocated to the final assessment. Students whose combined current and midterm score is below 30 points are not admitted to the final examination. A student who obtains 30 or more points in the final assessment is considered to have passed the course. **Assessment criteria:** **a) A grade of "5" (excellent) requires the student to:** – fully explain the essence and content of the course; – present the topics of the course in a scientific and logically consistent manner, without scientific errors or inaccuracies; – have a clear understanding of the theoretical or practical importance of the course material; – demonstrate the ability to think independently and freely within the scope of the course; – give clear and concise answers to the questions asked; – have a thoroughly prepared set of lecture notes; – complete independent assignments fully and accurately; – have mastered all the practical skills and competencies; – be able to apply theoretical knowledge in various situations; – take a systematic approach and maintain continuity. **b) A grade of "4" (good) requires the student to:** – understand the essence and content of the course and present its topics without scientific or logical inaccuracies;

	– understand the practical importance of the course content; – complete the tasks and assignments for the course within the scope of the syllabus; – give correct answers to the questions asked on the course; – have a well-prepared set of lecture notes for the course; – complete the independent assignments for the course in full; – have made an effort to master all the practical skills and competencies. **c) A grade of "3" (satisfactory) requires the student to:** – have a general understanding of the course; – cover the topics of the course within a narrow scope, allowing some inaccuracies in presentation; – complete the independent assignments for the course in full; – the presentation is not fluent; – answers to questions on the course are vague and confused; – the written work on the course is not carefully prepared. **d) A grade of "2" (unsatisfactory) may be given in the following cases:** – the student has not prepared for classes on the course; – the student has no understanding of the content of the classes; – the independent assignments for the course have not been completed in full; – there are signs that written work has been copied from others; – the written work contains serious errors and inaccuracies; – no answers are given to questions on the course, i.e. the student does not know the course.
Examination requirements	To earn the credits, the student must have fully mastered the theoretical and methodological concepts of the course, be able to present the results of analysis correctly, reason independently about the processes studied, complete the tasks and assignments given in the current and midterm assessment, and submit written work for the final assessment. Students who do not submit current assessment, midterm assessment and independent study assignments, or who score fewer than 30 points for these assignments and assessment components, are not admitted to the final assessment. Furthermore, a student who, without a valid reason, misses 25 percent or more of the contact hours allocated to the course will be withdrawn from the course, will not be admitted to the final examination, and will be considered not to have earned the relevant credits for the course. A student who fails the final examination or receives a score in the range of "0–29.9" for this examination is considered to have an academic debt.
Recommended literature	**Main literature:** 1. Mamanazarov O'.Sh. Loyiha boshqaruvi [Project Management]. Study guide. – Tashkent: Ijod-Press, 2019. – 208 p. 2. Qosimov M.S. Investitsiya loyihalar tahlili [Analysis of Investment Projects]. Study guide for higher education institutions. – Tashkent, 2021. – 192 p. 3. Project Management Institute. A Guide to the Project Management Body of Knowledge (PMBOK® Guide). 7th ed. – Newtown Square, PA: PMI, 2021. 4. Kerzner H. Project Management: A Systems Approach to Planning, Scheduling, and Controlling. 13th ed. – Hoboken, NJ: John Wiley & Sons, 2022. **Additional literature:** 5. Qosimov M.S., Abduvaliyev A. Loyihalar tahlili [Project Analysis]. Study guide. – Tashkent: TSUE, Iqtisodiyot, 2018. – 112 p. 6. Qosimov M.S. Investitsiya loyihalar tahlili [Analysis of Investment

	Projects]. Textbook. – Tashkent: TSUE, Iqtisodiyot, 2019. – 167 p. 7. Qosimov M.S., Muxamedjanova G.Ya. Investitsiya loyihalari tahlili [Analysis of Investment Projects]. – Tashkent: TSUE, 2011. – 208 p. 8. Law of the Republic of Uzbekistan "On Investments and Investment Activity" No. O'RQ-598 of 25 December 2019. 9. Decree of the President of the Republic of Uzbekistan No. PF-5120 of 24 July 2017 "On Measures to Introduce a Project Management System in the Republic of Uzbekistan". **Internet resources** 10. www.gov.uz – Government portal of the Republic of Uzbekistan. 11. www.lex.uz – National database of legislation of the Republic of Uzbekistan.