Course title	Scientific and Pedagogical Work (12 ECTS)			
Course/module code	**IPI312314**			
Semester(s) in which the course is taught	Semesters 1, 2, and 3			
Responsible instructors	Musayev Sharof Mamarajabovich, PhD in Technical Sciences, Associate Professor; Gadoyev Abror Niyazovich, Doctor of Technical Sciences (DSc), Professor; Pirnazarov Ilhom Islomovich, PhD in Technical Sciences, Associate Professor;. Xolbutayev Boybek Toshtemir o'g'li, PhD in Technical Sciences, Associate Professor; Sattarov Akbarali Baxodir o'g'li, PhD in Technical Sciences, Associate Professor; Ustemirov Shoxrux Rustam o'g'li, PhD in Technical Sciences, Associate Professor; Sultonov Akmal Obodovich, PhD in Technical Sciences, Associate Professor;			
Language of instruction	Uzbek			
Status in the curriculum	Compulsory			
Course workload	**Total workload — 360 hours**			
	Semester	**1**	**2**	**3**
	Total workload (hours)	60	120	180
ECTS	12			
Course objectives / Learning outcomes	The aim of the course is to acquire practical teaching skills; to develop professional competencies demonstrated through readiness to design models of classes in construction-related disciplines, and to analyse them taking into account psychological, pedagogical, and scientific-methodological requirements. Learning outcomes - apply scientific cognition methods in independent research activities, generate and implement innovative ideas; - master the methodology of scientific cognition, analyse and evaluate the content and level of philosophical and methodological problems in addressing research and innovation-related issues; - use modern information technologies to address research and innovation-related tasks; - carry out pedagogical activities in educational institutions, master and implement effective teaching practices, information and communication technologies, and pedagogical innovations; - master methods for the personal and professional development of a teacher-researcher, shaping a professional career path, and developing pedagogical ideals, standards, principles of pedagogical and research ethics, individual abilities, and aptitudes.			
Course content	Content 1. Current issues in higher education, innovation, and scientific-pedagogical activity. 2. Methodology of scientific and pedagogical research. 3. Information and communication technologies in scientific, pedagogical, and innovative activities. 4. Innovations in the history of education as a driving force of development. 5. Higher education pedagogy and psychology. 6. Education management. 7. Personal effectiveness of the teacher. 8. Innovative approaches and technologies in education. 9. Socialisation and education in the context of global challenges and risks. 10. Pedagogical excellence and its development.			
Form of assessment	Preparation and defence of a report			
Teaching / learning and assessment requirements	A maximum of 3 days is allocated for preparing the final report. During this period, master's students organise their individual plans and prepare a written report and presentation. Each master's student submits the following materials: - Report text; - Individual plan and reference from the research supervisor; - Electronic presentation of the master's student-trainee. Credits for research activities (practical training) are awarded by a commission in accordance with the approved procedure, with the participation of all master's students and their research supervisors. During the assessment, the competencies acquired by master's student-trainees in the course of their research activities (practical training) are evaluated.			

	No.	Activities and assignments	Allocated points	Report format

Assessment criteria for tasks completed during master's students' research practice, research work, and master's thesis preparation	1.	Current issues in higher education, innovation, and scientific-pedagogical activity	0–10	A report is prepared and presented.
	2.	Methodology of scientific and pedagogical research	0–10	A report is prepared and presented.
	3.	Information and communication technologies in scientific, pedagogical, and innovative activities	0–10	A report is prepared and presented.
	4.	Innovations in the history of education as a driving force of development	0–10	A report is prepared and presented.
	5.	Higher education pedagogy and psychology	0–10	A report is prepared and presented.
	6.	Education management	0–10	A report is prepared and presented.
	7.	Personal effectiveness of the teacher	0–10	A report is prepared and presented.
	8.	Innovative approaches and technologies in education	0–10	A report is prepared and presented.
	9.	Socialisation and education in the context of global challenges and risks	0–10	A report is prepared and presented.
	10.	Pedagogical excellence and its development	0–10	A report is prepared and presented.
Recommended literature	**Main literature:** 1. Urban Planning Code of the Republic of Uzbekistan. – Tashkent: O‘zbekiston, 23.05.2021. 2. Law of the Republic of Uzbekistan “On Drinking Water Supply and Wastewater Disposal” (O‘RQ-784). Tashkent, 28.04.2022. 3. Resolution of the President of the Republic of Uzbekistan “On additional measures to further improve the drinking water supply and sewerage system” (PQ-343). Tashkent, 24 October 2023. 4. Rizaev A.N., Xudoyberganova N.T. “Physico-Chemical Treatment of Natural and Waste Waters”. Study guide. Tashkent: Lesson Press, 2021. 236 p. (in Uzbek) 5. Qutlimurodov U. “Water Supply and Wastewater Disposal Systems”. Textbook. Tashkent, 2021. 252 p. (in Uzbek) 6. Sultonov A.O., Gadayev A.N. “Design of Water Conveyance Networks”. Study guide. Tashkent, 14.04.2025. 197 p. (in Uzbek) 7. Qutlimurodov U.M., Musayev Sh.M. “Water Supply and Wastewater Disposal Systems”. Textbook. Imperis Media. Tashkent, 06.11.2023. 246 p. (in Uzbek) 8. Alibekova N.N. “Design of Water Supply Systems of Industrial Enterprises”. Study guide. Jizzakh, 2023. 101 p. (in Uzbek) 9. Yakubov K.A., Bo‘riyev E.S. “Wastewater Treatment”. Textbook for higher education institutions. Tashkent, 2020. 220 p. (in Uzbek) 10. Rules for the preparation, legal expert review and registration of urban planning norms and rules, phytosanitary requirements, sanitary rules, norms and hygienic standards, environmental norms and rules, veterinary and veterinary-sanitary rules and norms. Annex 1 to Order No. 17-mh of the Minister of Justice of 29 July 2024, registered by the Ministry of Justice of the Republic of Uzbekistan on 6 August 2024 under No. 3545. **Internet resources:** 1. www.gov.uz – Government portal of the Republic of Uzbekistan. 2.www.lex.uz – National database of legislation of the Republic of Uzbekistan. 3.https://t.me/archbookuz			