<table>
<tr><td>Course title</td><td colspan="4">Research Practice (Internship) (18 ECTS)</td></tr>
<tr><td>Course/module code</td><td colspan="4">IA(S)3418</td></tr>
<tr><td>Semester in which the course is taught</td><td colspan="4">Semester 4</td></tr>
<tr><td>Responsible instructors</td><td colspan="4">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;</td></tr>
<tr><td>Language of instruction</td><td colspan="4">Uzbek</td></tr>
<tr><td>Status in the curriculum</td><td colspan="4">Compulsory</td></tr>
<tr><td>Study workload</td><td colspan="4">Total workload: 540 hours</td></tr>
<tr><td>ECTS</td><td colspan="4">18</td></tr>
<tr><td>Course objectives / learning outcomes</td><td colspan="4">The aim of the course is to prepare master's students for independent research. Its principal outcome is the preparation and successful defence of a master's thesis.
Learning outcomes:
- apply scientific methods of cognition in independent research activities, and generate and implement innovative ideas;
- master the methodology of scientific cognition, and analyse and evaluate the content and level of philosophical and methodological issues when addressing research and innovation problems;
- design and conduct comprehensive, systematic research, including innovative research, based on knowledge and skills in the construction sector;
- use modern information technologies to address research and innovation-related tasks;
- conduct research in the construction sector using modern research methods and information and communication technologies.</td></tr>
<tr><td>Course content</td><td colspan="4">1. Collect information on the research topic at the institution where the research internship is undertaken.
2. Approve the research work plan and determine the specific scope and areas of the research.
3. Familiarise oneself with the research internship programme and schedule.
4. Prepare an analytical review of the literature related to the research topic.
5. Develop the experimental methodology.
6. Carry out theoretical and experimental work on the research topic.
7. Test the materials.
8. Present the results of applied research at conferences.
9. Develop and substantiate original proposals, principles, approaches, and interpretations.
10. Conduct experimental tests.</td></tr>
<tr><td>Form of assessment</td><td colspan="4">Preparation and defence of a report</td></tr>
<tr><td>Teaching / learning and assessment requirements</td><td colspan="4">A maximum of 3 days is allocated for preparing the final report. During this period, master's students finalise 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 presentations by the master's student-trainees.
Credits for research activities (practical training) are assessed 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 during the research internship are evaluated.</td></tr>
<tr><td></td><td>
<table>
<tr><th>No.</th><th>Activities and assignments</th><th>Allocated points</th><th>Report format</th></tr>
<tr><td>1.</td><td>Collect information on the research topic from the research internship institution.</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>2.</td><td>Approve the research work plan and determine its scope and research areas (prepare and approve the master's student's individual work plan).</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>3.</td><td>Familiarise oneself with the research internship programme and schedule.</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
</table>
</td></tr>
</table>

	4.	Prepare an analytical review of the literature related to the research topic.	0–10	A report is prepared and presented.
	5.	Develop the experimental methodology.	0–10	A report is prepared and presented.
	6.	Carry out theoretical and experimental work on the research topic.	0–10	A report is prepared and presented.
	7.	Test the materials.	0–10	A report is prepared and presented.
	8.	Present theoretical research findings at conferences.	0–10	A report is prepared and presented.
	9.	Develop and substantiate original proposals, principles, approaches, and interpretations.	0–10	A report is prepared and presented.
	10.	Conduct experimental tests.	0–10	A report is prepared and presented.
	Note: 1. Topshiriqlar qo‘lyozma shaklida tayyorlanadi va har bir sahifaga talaba imzo qo‘yib tasdiqlaydi. 2. Topshiriq belgilangan namuna asosida tayyorlanadi va tegishli mas’ul shaxslar tomonidan tasdiqlanadi. 3. Baholash mezonlariga mos kelmaydigan bajarilgan topshiriqlar baholanmaydi.			
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			