Course title	**Scientific and Pedagogical Work (12 ECTS)**			
Course/module code	**IPI3112**			
Semester(s) in which the course is taught	Semesters 1, 2, and 3			
Responsible instructors	Ravshan Jabborovich Khamraqulov, Candidate of Technical Sciences, Associate Professor; Shuxrat Abdumalikovich Alikabulov, Doctor of Technical Sciences (DSc), Professor; Yorqin Sayfiddin o‘g‘li Rajabov, PhD in Technical Sciences, Associate Professor; Baxodir Uktamovich Sagatov, PhD in Technical Sciences, Associate Professor; Mashrab Rahmonqulovich Aliyev, Associate Professor; Uktam Uralboyevich Djurayev, Associate Professor; Ug‘iloy Shodiqulovna Ablayeva, Associate Professor. Shuxrat Abdumalikovich Alikabulov, Doctor of Technical Sciences (DSc), Professor; Yorqin Sayfiddin o‘g‘li Rajabov, PhD in Technical Sciences, Associate Professor; Baxodir Uktamovich Sagatov, PhD in Technical Sciences, Associate Professor; Mashrab Rahmonqulovich Aliyev, Associate Professor; Uktam Uralboyevich Djurayev, Associate Professor; Ug‘iloy Shodiqulovna Ablayeva, 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.			

<table>
<tr><td rowspan="11">Assessment criteria for tasks completed during master's students' research practice, research work, and master's thesis preparation</td><td>No.</td><td>Activities and assignments</td><td>Allocated points</td><td>Report format</td></tr>
<tr><td>1.</td><td>Current issues in higher education, innovation, and scientific-pedagogical activity</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>2.</td><td>Methodology of scientific and pedagogical research</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>3.</td><td>Information and communication technologies in scientific, pedagogical, and innovative activities</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>4.</td><td>Innovations in the history of education as a driving force of development</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>5.</td><td>Higher education pedagogy and psychology</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>6.</td><td>Education management</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>7.</td><td>Personal effectiveness of the teacher</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>8.</td><td>Innovative approaches and technologies in education</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>9.</td><td>Socialisation and education in the context of global challenges and risks</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>10.</td><td>Pedagogical excellence and its development</td><td>0–10</td><td>A report is prepared and presented.</td></tr>
<tr><td>Recommended literature</td><td colspan="4">Core literature:
1. Qosimova S.T. Binolarni texnik ekspluatatsiyaga xos xususiyatlari. O‘quv qo‘llanma. Toshkent -2003-y.
2. B.A.Asqarov Sh.R.Nizomov Temirbeton va tosh- g‘isht qurilishlari. Darslik. Toshkent. 2008. 13
3. Mirzayev Sh.R., Vaxitov M.M. Me’morchilik II–qism. “Fuqarolik binolari”. Darslik. Toshkent, 2010-y. 255 bet.
4. To‘ychiyev N.J. Bino va inshootlar konstruksiyalari. Darslik – Voris nashtiyoti. 2010 -y.
5. Matkarimov S.Yu., Nizomov Sh.R. Kompyuter dasturlari asosida qurilish konstruksiyalarini hisoblash va avtomatlashtirish. Toshkent, 2013
6. Xodjaev A.A., Xotamov A.T., Yusufxo‘jaev S.A., To‘laganov B.A. Konstruksiyalarining shikastlanish sabablari va buzilish oqibatlarini aniqlash. O‘quv qo‘llanma. T., 2014. -136 b.
7. Artur Nilson, David Darwin, Charles Dola. Design of Concrete Structures 14th Edition. USA 2018.
8. S.A.Yusupxodjayev “Qurilish konstruksiyalari” Darslik. Toshkent. “O'zbekiston faylasuvlari milliy jamiyati”. 2019-yil 376 bet
9. Matkarimov S.Yu. Qurilish konstruksiyalarini loyihalashda kompyuter texnologiyalari. Darslik. Toshkent 2020.
10. Aliyev M.R. Bino va inshootlarning texnik holatini baholash. Darslik – Jizzax 2021-y.
11. U.U.Djurayev “Temirbeton va tosh konstruksiyalari” Darslik Jizzax 2022-yil
12. Janizaqov A.E. “Arxitekturaviy konstruksiya”. Darslik. Jizzax-2023
13. Aliyev M.R. Bino va inshootlar zilzilabardoshligi. O‘quv qo‘llanma. Jizzax: “So‘g‘diyona nashriyot matbaa uyi”, 2023 – yil 108 b.
14. U.U.Djurayev Qurilish konstruksiyalarini loyihalashda kompyuter texnologiyalari. Darslik Jizzax 2023-yil 246 bet.
15. Berdiyev O.B. “Sanoat binolari” darslik. Toshkent. 2024-yil. 172 bet.
16. Berdiyev O.B. “Bino va inshootlar arxitekturasi” o‘quv qo‘llanma. Toshkent. 2024-yil. 74 bet.
17. Normatova N.A., Xandamqulov Sh.B. “Sanoat va fuqaro binolari arxitekturasi” o‘quv qo‘llanma. Jizzax. 2024-yil. 218 bet
18. ShNQ 2.01.02-04 Bino va inshootlarning yong‘in xavfsizligi
19. ShNQ 1.01.01-09. Qurilish sohasidagi normativ hujjatlar tizimi.
20. ShNQ 2.01.04-18 Qurilishda issiqlik texnikasi
21. QMQ 2.01.03-19 Seysmik hududlarda qurilish.
22. ShNQ 2.01.01-22. Loyihalash uchun iqlimiy va fizikaviy geologik malumotlar
23. ShNQ 2.08.02-23 Jamoat binolari va inshootlari.
24. ShNQ 2.09.02-23 Korxonalarning ishlab chiqarish hamda ma’muriy-maishiy bino va inshootlari. Loyihalash talablari
25. ShNQ 2.03.05-23. Po‘lat konstruksiyalar. Loyihalash talablari. O‘zbekiston Respublikasi Qurilish va uy-joy kommunal xo‘jaligi vazirligi, 2024.
26. ShNQ 2.01.07-21. Yuklamalar va ta’sirlar. O‘zbekiston Respublikasi qurilish me’yoriy hujjati, 2024.
27. ShNQ 2.01.05-24 Tabiiy va suniy yoritish
28. ShNQ 2.08.01-24 Turar joy ob’yektlarini loyihalash
29. SHNQ 2.03.01-24. Beton va temir-beton konstruksiyalar. O‘zbekiston Respublikasi Qurilish va uy-joy kommunal xo‘jaligi vazirligi, 2024.
30. SHNQ 2.03.10-24. Tomlar va tom qoplamalari. O‘zbekiston Respublikasi Qurilish va uy-joy kommunal xo‘jaligi vazirligi, 2025.
Internet resources:
31. www.mc.uz
32. https://gov.uz/oz/mc/sections/shaharsozlik-normalari-qurilish-va-texnik-reglamentlar
33. www.ZiyoNet.uz</td></tr>
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