Course title	Special Topics in Architecture (ECTS 4)
Subject/Module Code	AMM2304
Semester(s) in which the course is taught	Semester 3
Assigned Lecturer	Sagatov Baxodir Uktamovich, PhD in Technical Sciences, Acting Associate Professor
Language of Instruction	Uzbek
Course Type	Elective
Study Hours (including independent study)	**Total hours – 120.** **Classroom contact hours – 36.** Lecture hours – 18 Practical session hours – 18 **Independent study – 84 hours**
ECTS	4
Course Aims and Objectives / Learning Outcomes	**Course aim** – to develop in master's students in-depth theoretical knowledge and practical skills concerning current challenges, development trends and promising directions in contemporary architecture and urban planning. It also aims to develop competencies in the research-based study and analysis of innovative architectural design methods, modern construction and digital technologies, environmental sustainability, energy efficiency, the protection of historical and architectural heritage, and the integration of national architectural traditions into contemporary architecture, as well as in the independent development of architectural solutions. **Course objectives** – to provide master's students with an in-depth understanding of current challenges in contemporary architecture and urban planning; to enable them to master innovative architectural design methods and advanced technologies; and to develop the skills and competencies required to independently create scientifically grounded, contemporary and effective architectural solutions by combining the principles of environmental sustainability and national architecture. **Learning outcomes:** 1. understands the development trends, theoretical foundations and current challenges of contemporary architecture and urban planning; 2. is able to apply innovative architectural design methods and modern digital technologies; 3. has the skills to conduct comprehensive analysis and assessment of architectural objects and urban planning areas; 4. is able to develop architectural solutions based on the principles of environmental sustainability, energy efficiency and universal design; 5. develops proposals for the protection of historical and architectural heritage and its adaptation for contemporary use; 6. is able to integrate national architectural traditions with contemporary architectural design; 7. is competent in using research methods in architecture to develop independent scientific conclusions and innovative design proposals.
Course Content (Topics)	I. Main Theoretical Part (Lectures) Topic 1: Architectural theory, postmodernism, deconstructivism and contemporary architectural concepts. Topic 2: Urbanization, restructuring of urban space, regeneration and regional development strategies. Topic 3: Research methodology, architectural analysis, modelling and conceptual design. Topic 4: Bioclimatic architecture, green buildings, passive design and environmental sustainability. Topic 5: Conservation of architectural heritage, adaptive reuse and protection of the historic environment. Topic 6: Human-centred design, inclusive environments, universal design

and psychological comfort.

Topic 7: Mixed-use complexes, high-rise buildings, long-span structures and complex architectural projects.

Topic 8: BIM, parametric design, generative design, digital twins and artificial intelligence.

Topic 9: Contemporary interpretation of national architectural traditions, and the architectural development and prospects of cities in Uzbekistan.

II. Guidelines and Recommendations for Practical Classes

The instructor's preparation for a practical class begins with reviewing the initial documents (the curriculum, thematic plan and other relevant materials) and concludes with preparing the lesson plan. The instructor should have a clear understanding of the aims and objectives of the practical class and the amount of work each student is expected to complete.

Methodological guidelines are the principal instructional document used by the instructor when preparing and conducting practical classes.

The purpose of practical classes is to develop an understanding of theoretical material and acquire practical skills, as well as to foster the ability to apply this knowledge consciously in academic and professional activities and to formulate and substantiate one's own position.

Recommended practical topics:

1. Theoretical and methodological analysis of contemporary architectural objects.
2. Comprehensive architectural and planning analysis of urban areas and development of an urban development concept.
3. Application of research methods in architectural design and development of a conceptual solution.
4. Practical analysis of the design of energy-efficient and environmentally sustainable buildings.
5. Technical and architectural assessment of historic and architectural sites and development of an adaptive reuse project.
6. Assessment of universal design, ergonomics and inclusiveness requirements in the architectural environment.
7. Design of architectural objects with complex functional-planning and structural solutions.
8. Modelling architectural objects using BIM and parametric modelling technologies.
9. Development of an architectural concept with a national identity based on contemporary architecture in Uzbekistan.

III. Independent Study and Individual Work

Independent learning helps students develop the ability to improve themselves independently and contributes to greater effectiveness in their professional activities. Students complete independent assignments on their mobile devices, under the instructor's guidance, in either traditional or electronic format.

Recommended topics for independent study:

1. Development of an architectural concept with a national identity based on contemporary architecture in Uzbekistan.
2. Comparative analysis of development trends and promising directions in contemporary world architecture.
3. Urbanization processes in contemporary urban planning and challenges involved in improving the architectural environment.
4. Innovative architectural design methods and the scientific foundations of conceptual design.
5. International experience in bioclimatic architecture and the design of energy-efficient buildings.
6. Preservation, protection and contemporary development of the

	architectural environments of historic cities. 7. Principles of universal design and contemporary approaches to creating an inclusive architectural environment. 8. Spatial and volumetric solutions for multifunctional buildings and complexes in contemporary architecture. 9. Opportunities offered by parametric architecture, artificial intelligence and digital technologies in the design process. 10. Interpretation of Uzbekistan's national architectural traditions in contemporary architecture and prospects for their development.
Student Assessment	Student assessment is based on the level of mastery of the learning materials demonstrated during the semester and final assessments (tests, assignments, and written and oral work). Throughout the Special Topics in Architecture course, students are assessed on a 100-point scale. Of the total, 50 points are allocated to ongoing and midterm assessment (60% of these 50 points for ongoing assessment and independent study, and 40% for midterm assessment), while the remaining 50 points are allocated to the final assessment. Students who score fewer than 30 points in total on ongoing and midterm assessments are not admitted to the final examination. A student who scores 30 points or more in the final assessment is considered to have passed the course.
Examination Requirements	The student must have fully mastered the theoretical and practical concepts related to the topics and be able to present the results of analyses accurately. The student must complete the assignments set for independent work and for the ongoing and midterm forms of assessment. In addition, within the prescribed period, the student must obtain the required scores in ongoing assessment, midterm assessment, independent study and the final assessment for the relevant course. A student who has not submitted ongoing assessment, midterm assessment and independent study assignments, or who has scored fewer than 30 points for these assignments and assessment components, is not admitted to the final assessment. A student who, without a valid reason, misses 25 percent or more of the classroom 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 does not pass the final examination or scores between "0 and 29.9" in this examination is considered to have an academic debt.
Recommended Literature	**Main references:** 1. Vaxitov M.M., Mirzayev Sh.R. Architecture. Part I: History of Architecture. – Tashkent: Tafakkur, 2010. – 368 pp. 2. Vaxitov M.M., Mirzayev Sh.R. Architecture. Part II: Civil Buildings. – Tashkent: Tafakkur, 2010. 3. Isamuxamedova D.U. Fundamentals of Urban Planning and Landscape Architecture. – Tashkent: Cho'lpon, 2009. – 160 pp. 4. Ahmedov M.Q. History of the Architecture of Central Asia. – Tashkent: O'zbekiston, 1995. – 142 pp. 5. Qodirova T.F. History of Art, Architecture and Urban Planning. – Tashkent, 2014. 6. Po'latov X.Sh. Architectural Monuments of Uzbekistan. – Tashkent: TAQI, 2013. 7. Marakaev R.Yu., Norov N.N. Design of Energy-Efficient Buildings under the Conditions of Uzbekistan. 8. Setmamatov M.B., Abdullayeva Sh.I. Green Architecture and Energy Conservation. – Study guide. 9. O'rolov A., Qodirova T. History and Methods of Architectural Composition. – Study guide. 10. Sattorov Z.M. Construction Ecology. – Textbook.

	11. Miralimov M.M., Sayfiddinov S. Architecture of Buildings and Structures. – Textbook. 12. Oripova S.A. Urban Studies and Urban Planning. – Study guide. **Additional local references** 13. Sobirov A.S., Yusufov S.A. Use of Materials in Practical Classes for the Architectural Design Course. – Methodological guide. 14. Qutliyev A.A., Bo‘ronov S.B. Practical Exercises for the Course Fundamentals of Urban Construction and Design. – Instructional and methodological guide. 15. Salimov O.M. Methods for the Contemporary Use of Architectural Monuments. – Study guide. **Electronic libraries:** 1. Urgench State University (UrSU) Electronic Library – Architecture 2. ZiyoNET Educational Portal 3. Electronic Resources of Chirchik State Pedagogical University