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| **Course title** | **Model Making (Maketlash) (ECTS 4)** |
| **Course/module code** | **MT 2804** |
| Semesters of instruction | Semester 4/8 |
| Assigned instructor | Khalikov Sanjar Ravshanovich, assistant |
| Language of instruction | Uzbek |
| Course type | Compulsory |
| Academic hours (including independent study) | **Total hours – 120.**<br>**Classroom hours – 60.**<br>Lectures, hours – 0<br>Laboratory classes, hours – 0<br>Practical classes, hours – 60<br>**Independent study – 60 hours** |
| ECTS | 4 |
| Aim and objectives of the course / learning outcomes | **Aim of the course** – the aim of teaching the course "Model Making" is to teach students of the 60730100 – Architecture (by types) programme to produce, at a high level, models and maquettes of architectural environments on the basis of the laws of perception of volumetric-spatial forms. The aim is also to reveal the modern aspects of design and to present an existing building or complex, or to demonstrate design practice by way of example.<br>**Objective of the course** – the main objective of teaching the course "Model Making" is to teach students to use, when creating architectural environments, the laws of perception of volumetric-spatial forms, their types and properties, and the means, methods and rules that ensure architectural and artistic integrity in buildings and building interiors, and to instil in them the skills of applying these methods and rules effectively in the model-making process; to develop creative skills in producing the volumetric and spatial solution of a building; to ensure harmony of forms when creating a composition and to give students in-depth skills and experience in creating a modern appearance of a project depending on its location.<br>**Learning outcomes:**<br>1. Acquires creative skills in developing the volumetric and spatial solution of a building.<br>2. Is able to ensure harmony of forms when creating a composition in the design process.<br>3. Gains in-depth knowledge and experience in creating a modern appearance of a project depending on the location of the object.<br>4. Gains a rich perception and understanding of how to reveal the modern aspects of design.<br>5. Becomes closely acquainted with the presentation of an existing building or complex and with design practice. |
| Course content (topics) | **I. Main theoretical part (lectures)**<br>Lectures are not provided for in the standard curriculum of the course. |

**II. Guidelines and recommendations for organizing laboratory classes.**

Laboratory classes are not provided for in the standard curriculum of the course.

**III. Guidelines and recommendations for practical classes**

The instructor's preparation for a practical class begins with the study of the source documents (curriculum, thematic plan, etc.) and ends with the drawing up of a lesson plan. The instructor must have an understanding of the aim and objectives of the practical class and of the volume of work that each student must complete.

The methodological guidelines are the instructor's main methodological document when preparing and conducting practical classes.

The aim of the practical class is the understanding of theory and the acquisition of skills. It consists in developing the ability to apply them consciously in educational and professional activity and to formulate one's own point of view convincingly.

**Recommended topics for practical classes:**

1. General information on model making (maketlash).
2. Selecting an object for creating a model.
3. The main stages of model making and their types.
4. The main methods of modelling and of making templates (patterns) for the object being modelled.
5. Developing images in the SketchUp programme; working on the structure of the model and the idea.
6. Volumetric-spatial construction. Volume and environment.
7. Making a model of a building to scale.
8. Assembling the structural parts.
9. Working on the ground part (base) of the building.
10. Model making of an object according to its function. Working on the sketch of the architectural project, the development of the plan, sections, etc.
11. Modelling an object based on a given theme.
12. Copy of the drawing; proportions of the building elements.
13. Constructing and making a model of the object.
14. Installing the ribbed frame.
15. Completing the structural elements.
16. Making a model of the landscape around the building.
17. Landscape sketch. Design organization of the territory.
18. Working on the relief of the territory and artificial water bodies.
19. Landscaping the territory and preparing its parts.
20. Completing the base of the object on the basis of a 1/2-scale model; working on the proportions and ratios of the object.
21. Assembling the parts of the object model in the final 1/2-scale model. Selecting a board for assembling the parts.
22. Graphic modelling of the object; full finishing of the model.

**IV. Independent study and independent work.**

The independent-learning competence helps students in their independent self-development and in increasing the effectiveness of their professional

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| | activity. Students carry out independent work on their mobile devices under the guidance of the instructor, in traditional or electronic form.<br>**Topics recommended for independent study:**<br>1. General information on model making (maketlash).<br>2. Selecting an object for creating a model.<br>3. The main stages of model making and their types.<br>4. The main methods of modelling (making templates) of the object being modelled.<br>5. Graphic presentation of the template part.<br>6. Volumetric-spatial construction. Volume and environment. Making a model of a building to scale.<br>7. Assembling the structural parts.<br>8. Working on the ground part (base) of the building.<br>9. Placing the object model in its surroundings.<br>10. Model making of an object according to its function. Working on the sketch of the architectural project, the development of the plan, sections, etc.<br>11. Modelling an object based on a given theme.<br>12. Copy of the drawing; proportions of the building elements. Constructing and making a model of the object.<br>13. Installing the ribbed frame and completing the remaining structural elements.<br>14. Making a model of the landscape around the building.<br>15. Landscape sketch. Design organization of the territory.<br>16. Working on the relief of the territory and artificial water bodies.<br>17. Landscaping the territory and preparing its parts.<br>18. Placing the object model in the environment.<br>19. Artistic model making of the style (appearance) elements of the object.<br>20. Graphic modelling of the object; full finishing of the model. |
| Student assessment | The assessment of students' knowledge is based on indicators of the mastery of the learning material during the semester and on the final assessment (results of tests, assignments, and written and oral work).<br>In the course "Analysis of Building Structure", students are assessed on a 100-point system. Of these, 50 points are allocated to the result of ongoing and interim assessment (of the 50 points, 60% is ongoing assessment and independent study, and 40% is interim assessment), and 50 points to the result of the final assessment. Students whose total result for ongoing and interim assessment is below 30 points are not admitted to the final examination. A student who scores 30 or more points in the final assessment is considered to have mastered the course. |
| Examination requirements | The student must fully master the theoretical and practical concepts on the topic and be able to reflect the results of analysis correctly. The student must complete the tasks given in the ongoing and interim forms of assessment, as well as the independent work. In addition, within the established deadlines the student must score the required number of points in ongoing assessment, interim assessment, independent study and final assessment in the relevant course. |

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| | A student who has not completed the tasks of ongoing assessment, interim assessment and independent study, and who has scored less than 30 points for these tasks and types of assessment, is not admitted to the final assessment.<br>In addition, a student who, without a valid reason, misses 25 or more percent of the classroom hours allocated to the course is removed from the course, is not admitted to the final examination, and is considered not to have earned the corresponding credits for the course.<br>A student who fails the final examination or scores in the range “0–29.9” in these types of examination is considered to have an academic debt. |
| Recommended literature | **Main literature:**<br>1. A.A. Turdiev. Model Making (Maketlash and Modelling). Study guide. – Tashkent, 2024.<br>2. A. Kulanov, A. Umarov, J. Rashidov. Model Making. Textbook. – Tashkent, 2019.<br>3. A.A. Gerasimov, V.I. Kovalenko. MODEL MAKING FROM PAPER AND CARDBOARD [Макетирование из бумаги и картона]. Teaching and methodological manual. Masherov Vitebsk State University, 2020.<br>**Additional literature**<br>4. N.I. Kalmykova, I.A. Maksimova. Model Making from Paper and Cardboard [Макетирование из бумаги и картона]. Study guide. Moscow, 2000.<br>5. E.A. Gavrilyuk, L.A. Kovaleva, T.Yu. Blagovaya. MODEL MAKING FROM PAPER [Макетирование из бумаги]. Study guide. – Blagoveshchensk, 2018.<br>6. R.I. Alimdjarov, M.Kh. Shakhmuradova. Methodological guidelines for conducting practical classes in the course “Model Making”. – Tashkent, 2018.<br>**Internet resources**<br>7. http://www.arhitekto.ru/txt/2razv16.shtm1<br>8. http://www.глазйчев.ру/ боокс/мирарчитектурй/ глава8глава08-01.ҳтм<br>9. http://www.natlib.uz/rus/ calendar2006.pdf. National Library of Uzbekistan<br>10. http://www.archunion.com.ua/clovarik.shtm1- Architectural Encyclopedia https://ocw.mit.edu/ courses/ 4-101-experiencing-architecture-studio-spring- 2003/pages/calendar/ |