



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Fundamentals of Urban Design [S1Arch1E>PPU]

### Course

Field of study  
Architecture

Year/Semester  
2/3

Area of study (specialization)  
–

Profile of study  
general academic

Level of study  
first-cycle

Course offered in  
English

Form of study  
full-time

Requirements  
compulsory

### Number of hours

Lecture  
0

Laboratory classes  
0

Other  
0

Tutorials  
0

Projects/seminars  
0

### Number of credit points

5,00

### Coordinators

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### Lecturers

### Prerequisites

– the student has well-ordered general knowledge, with theoretical foundations, of the key concepts from the field of urban and architectural composition; – the student has basic knowledge about the courses of study related to the studied course of study; – the student knows the basic methods, techniques, tools, and materials used for solving simple architectural-urban design tasks; – the student can identify and formulate the specification of practical composition tasks; – the student can critically analyze the functioning of and analyze the existing technical solutions – especially in connection with the studied subject, in particular, the devices, objects, systems, and services; – the student understands the need for lifelong learning, the student can inspire and organize other people's learning process; – the student can correctly identify and solve dilemmas related to urban and architectural composition.

## Course objective

1. To practice feeling and drawing an urban interior, to realize the influence of the changes introduced in the space on its reception; 2. to practice distinguishing the leading and stopping forms in a space, to improve suggestive drawing of spaces; 3. to practice using the means of composition to achieve the aim, to practice drawing; 4. to practice shaping the form of urban spaces, independent creation and presentation of solutions for complexes of interrelated interiors; 5. to learn about urban composition and get to know the basic problems of urban planning.

## Course-related learning outcomes

### Knowledge

Student knows and understands:

A.W2. urban design in the scope of implementation of simple tasks, in particular: small building complexes, local spatial development plans, taking into account local conditions and connections, as well as forecasting transformation processes in the settlement structure of towns and villages;

A.W3. records of local spatial development plans to the extent necessary for architectural design;

A.W4. principles of universal design, including the idea of designing spaces and buildings accessible to all users, in particular for people with disabilities, in architecture, urban planning and spatial planning, and ergonomic principles, including ergonomic parameters necessary to ensure full functionality of the designed space and facilities for all users, especially for people with disabilities

### Skills

Student can:

A.U2. design a simple urban complex;

A.U4. make a critical analysis of the conditions, including the valorization of the land development and building conditions;

A.U5. think and act creatively, using the workshop skills necessary to maintain and expand the ability to implement artistic concepts in architectural and urban design;

A.U6. integrate information obtained from various sources, formulate their interpretation and critical analysis;

A.U7. communicate using various techniques and tools in a professional environment appropriate for architectural and urban design;

A.U9. implement the principles and guidelines of universal design in architecture, urban planning and spatial planning.

### Social competences

Student is capable of:

A.S1. independent thinking to solve simple design problems;

A.S2. taking responsibility for shaping the natural environment and cultural landscape, including the preservation of the heritage of the region, country and Europe.

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

### Lectures:

Summative evaluation (only)

Pass in the form of a written test of the current knowledge after a series of lectures

The grading scale: 2.0; 3.0; 3.5; 4.0; 4.5; 5.0

Formative assessment:

periodic control of learning progress, active participation in classes

Accepted grading scale: 2,0; 3,0; 3,5; 4,0; 4,5; 5,0.

Percentage of grades: 0–50% - 2.0 (insufficient); 50-60% - 3.0 (sufficient); 60-70% - 3.5 (sufficient plus); 70-80% - 4.0 (good); 80-90% - 4.5 (good plus); 90-100% - 5.0 (very good).

Summative assessment:

a final test or (if an exam is included in the curriculum) a written exam

Accepted grading scale: 2,0; 3,0; 3,5; 4,0; 4,5; 5,0.

Percentage of grades: 0–50% - 2.0 (insufficient); 50-60% - 3.0 (sufficient); 60-70% - 3.5 (sufficient plus); 70-80% - 4.0 (good); 80-90% - 4.5 (good plus); 90-100% - 5.0 (very good).

Project (design work):

Formative evaluation

Formative evaluation Reviews of the works done during the semester presentations in the group, a group

discussion. The condition for passing the course is obtaining positive grades for all the reviews. Reviews of the works done during the semester presentations in the group, a group discussion. The condition for passing the course is obtaining positive grades for all the reviews.

Review no. 1. The required scope of the study: projection in the 1:1,000, 1:500, or 1:250 scale, axonometric projection in the same scale, perspective view from the point of view of a human, any technique except computer work, A3 size

Review no. 2. The required scope of the study: mock-up – foundation dimensions not greater than A3 size, projection, scale 1:1, a perspective drawing which illustrates the phenomenon of leading, a perspective drawing which illustrates the phenomenon of stopping, a perspective drawing which illustrates the phenomenon of leading in or out, any technique, A3 size

Review no. 3. The required scope of the study: projection scale 1:1,000 or 1:500 (determining the location), detailed projection; scale depending on the project, from 1:200 to 1:50, cross-sections, façades; scale depending on the project, from 1:200 to 1:50, perspective views from the point of view of a human, a mock-up or an axonometric projection, possibly detail drawings, any technique, A3 size

Review no. 4. The required scope of the study: projection in the 1:1,000, 1:500, or 1:250 scale, cross-section, scale 1:1,000, 1:500, or 1:250, perspective views from the point of view of a human, a mock-up in the 1:1,000, 1:500, or 1:250 scale, drawings of the analysis of the content of the interior, any technique, A3 size

Review no. 5. The required scope of the study: projection scale 1:500 or 1:25, with a project of land development, in particular: the division into construction plots and the course of the fence, the location of buildings with the zoning of private and public space, garage and building entries, greenery, pavement elements, communication, car parks, significant equipment pieces of the plot such as a trash enclosure, a terrace, parking spaces, etc., projection in the 1:250, 1:200, or 1:100 scale, a fragment of the complex with functional diagrams marked for selected buildings, a characteristic projection through the designed complex. Perspective views which show the nature of the designed complex from the point of view of a human, a mock-up or computer visualizations, possibly an axonometric projection which shows the whole of the designed complex.

The grading scale: 2.0; 3.0; 3.5; 4.0; 4.5; 5.0

Summative evaluation:

The final-summative evaluation consists of:

- the grade point average from the grades given by the instructor and from the grades for the engagement and for the quality of studies given by the group and the design team at the end of each of the three stages of the project;
- the grade for the final results of the project given by the instructor during the review in the last class in the semester. The grading criteria are provided to students at the beginning of the classes.

The grading scale: 2.0; 3.0; 3.5; 4.0; 4.5; 5.0

Obtaining a positive grade for the module depends on the student's achievement of all the education outcomes included in the syllabus.

## Programme content

Lectures:

Scope of program content prepares students for consciously perceiving and shaping urban spaces and provides them with the theoretical foundations for designing elementary settlement units. An important aspect of the subject is acquainting students with issues concerning the organization of various forms of urban space and with the basic functions in it, such as: housing, work places, recreation, services. In the lectures, the principles for finding solutions for communication, infrastructure, the natural environment, the social environment, etc. are presented, as well as the basic aspects of spacial policies. Also discussed are the problems of the integration and hierarchization of space, typology of urban units, floor area ratios, and housing density ratios, as tools for obtaining synthetic information about the area encompassed by the project and for enabling an objective evaluation of the existing conditions in relation to social needs. The program provides basic knowledge about the shaping of urban space, including the two-dimensional layout and three-dimensional structure, in the existing context and taking into account the functional and compositional interrelationships in the studied area.

1. The definition of the subject area, urban planning as a discipline.
2. The role of composition in urban design.
3. Perception of the city, theories of vision. A human in the urban space, perceiving space, lines, and surfaces which direct vision, view points.
4. The concept of an urban interior, its components: the floor, the wall, the urban ceiling.
5. Simple interiors, the typology and impact of various types of interiors.

6. The parameters of the compactness of an urban interior, the typology of openings, the central angle.
7. The phenomenon of the coupling of urban interiors, space-time sequences.
8. The functional and spatial structure of the city.
9. The main elements of the spatial structure of the city.
10. The urban material – compositional and functional conditions.
11. Single-family residential development.
12. The principles of shaping single-family development complexes.
13. Multi-family residential development and service development.
14. Green areas as a particular type of urban material.
15. The sociological aspect of urban planning, social space.

Project (design work):

- Presenting, in the form of a drawing, on the basis of the student's own experience, a selected fragment of the urban space of Poznań which has the characteristic of a legible interior.
- Making changes in the space from exercise 1A. The student should make clear changes in the space, consisting in: a change of the height and nature of the development, solving the issue of the urban floor, adding or eliminating other volume elements while preserving a visible 'trace' of the initial space.
- Dynamic, abstract spatial composition. The student should find in a composition and illustrate with perspective drawings the places in which the following phenomena occur: leading, stopping, leading out, leading in.
- A spatial composition which commemorates a historical event – endowing it with a particular spatial context.
- A complex of interrelated interiors in the urban space.
- An elementary residential complex consisting of 8–14 single-family houses (various types of them). Obtaining the effect of a legible interior or a complex of urban interiors in a composition.

## Course topics

The lecture and classes cycle is an introduction to the broad field of urban planning. It provides knowledge about the essence of the city and the laws of urban space. It focuses on the architect's responsibilities in the urban planning team: the quality of composition and the proper use of the urban material.

## Teaching methods

1. A course lecture with a multimedia presentation.
2. Exercise method based on the use of various sources of knowledge, field query, collecting source materials like maps, photographs.
3. e-Learning Moodle (system for supporting the learning process and for distance learning).

## Bibliography

Basic:

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2. Adamczewska-Wejchert Hanna, Domy atrialne-jeden z typów jednorodzinnego budownictwa zespolonego, Państwowe Wydawnictwo Naukowe, Warszawa 1978.
3. Adamczewska-Wejchert Hanna, Kształtowanie zespołów zabudowy mieszkaniowej, Arkady, Warszawa 1985.
4. Chmielewski Jan Maciej, Teoria urbanistyki w projektowaniu i planowaniu miast, Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2010.
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6. Peters Paulhans, Rosner Rolf, Małe zespoły mieszkaniowe, Arkady, Warszawa 1983.
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9. E-skrypt dla przedmiotu "Teoria urbanistyki i Podstawy projektowania urbanistycznego."
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13. Michał Marmur: Skala śródmiejskiej ulicy. In: ed. Robert Ast, Radosław Berek, Studia Planowania Przestrzennego. Monografia wykładowców poddyplomowych Studiów Planowania Przestrzennego SP-109 przy Wydziale Architektury Politechniki Poznańskiej, Poznań: Wydawnictwo Stowarzyszenie Psychologia i Architektura 2019; pp. 221–230
14. Graczyk Rafał, (2014), Identyfikacyjna rola dominanty architektonicznej w strukturze małego miasta, Wydawnictwo Politechniki Poznańskiej, Poznań
15. Kaźmierczak Bartosz, Matusewicz Tomasz., Pazder Dominika, Art in city public space – chosen aspects. Case study of Poznan in Poland, Journal of Humanities and Social Sciences, Scholars Academic and Scientific Publishers (SAS Publishers), 2017

Additional:

1. Bańka Augustyn, Behawioralne podstawy projektowania architektonicznego, Wydawnictwo Polietchniki Poznańskiej, Poznań 1984.
2. Ostrowski Wacław, Urbanistyka współczesna, Arkady, Warszawa 1980.
3. Tołwiński Tadeusz, Urbanistyka, volumes 1, 2, 3, Państwowe Wydawnictwo Naukowe, Warszawa 1939.
4. Hall Edward , Ukryty wymiar, Państwowy Instytut Wydawniczy, Warszawa 1978.
5. Hall E., Bezgłośny język, PWN, Warszawa 1987.
6. Lynch Kevin, L'image de la cite, Paris, Dunod, 1969.
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### Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,00
Classes requiring direct contact with the teacher	60	2,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	65	2,50