



COURSE DESCRIPTION CARD - SYLLABUS

Course name

THEORY OF COMPOSITION IN ARCHITECTURAL DESIGN

Course

Field of study

ARCHITEKTURA

Area of study (specialization)

-

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

I/2

Profile of study

general academic

Course offered in

polish

Requirements

compulsory

Number of hours

Lecture

30

Laboratory classes

0

Other (e.g. online)

0

Tutorials

30

Projects/seminars

0

Number of credit points

4

Lecturers

Responsible for the course/lecturer:

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Prerequisites

- the student has structured, theoretically based general knowledge covering key issues in the field of composition development,
- the student has basic knowledge of development trends in the field of form shaping,
- the student knows the basic methods used in solving design tasks in the field of shaping composition,
- the student has basic knowledge necessary to understand the social conditions of activities related to the proper shaping of space
- the student is able to obtain information from literature, databases and other appropriately selected sources, also in English or another foreign language recognized as the language of international communication in the field of study; is able to integrate the information obtained, interpret it, draw conclusions and formulate and justify opinions,
- the student is able to prepare, in Polish (and a foreign language), considered basic for the fields of science and scientific disciplines relevant to the field of study being studied, a well-documented study on issues related to the main trends and directions in the field of composition, the student has the ability to self-educate,
- the student is able to make a critical general analysis and assess the importance of design solutions in the field of composition,
- the student is able to use information and communication techniques including artistic means appropriate to carry out tasks typical for shaping compositions,
- the student understands the need for lifelong learning, is able to inspire and organize the learning process of other people,
- the student is aware of the importance and understands the non-technical aspects and effects of design activities, including its impact on the environment and the spatial context, and the related responsibility for decisions made related to the proper shaping of space,
- the student correctly identifies dilemmas related to the profession of architect, the student is aware of the social role of a technical university graduate, and especially understands the need to formulate and convey to society, in particular through the mass media, information and opinions regarding technical achievements and other aspects of engineering activities; makes every effort to convey such information and opinions in a generally understandable manner,
- the student is able to cooperate and work in a group, taking on various functions in it

Course objective

Purpose of the course - LECTURES:



- introducing students to the basic principles of composition, consistent with contemporary aesthetic canons
- presenting students with the design process, taking into account the basic tools of an architect's work and basic issues related to composition in design
- presenting students with psychophysical human-object relationships and design principles consistent with the recipient's perceptual capabilities
- presentation of the continuity and evolutionary nature of changes in the design of elements of flat and spatial composition

Purpose of the subject - EXERCISES:

- learning about psychophysiological processes and conditions of the vision and perception process
- learning the theory and various types of graphic and spatial compositions
- solving composition tasks in flat and three-dimensional formats, with particular emphasis on their readability resulting from maintaining appropriate proportions and relationships between elements

Course-related learning outcomes

Knowledge

- architectural design for the implementation of simple tasks, in particular: simple facilities taking into account the basic needs of users, single- and multi-family housing developments, service facilities in residential complexes, public utility facilities in an open landscape or in an urban environment;

Skills

- design an architectural object, creating and transforming the space to give it new values - in accordance with a given program that takes into account the requirements and needs of all users;
- make a critical analysis of the conditions, including the valorization of the state of land development and buildings;
- integrate information obtained from various sources, interpret and critically analyze them;
- prepare architectural and construction documentation in appropriate scales in relation to the conceptual architectural design;

Social competences

- independent thinking to solve simple design problems;
- taking responsibility for shaping the natural environment and cultural landscape, including preserving the heritage of the region, country and Europe.



Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

1. The Theory of Composition subject ends with an oral examination on the date specified by the teacher responsible for the subject.
2. The condition for passing the course is participation in lectures and obtaining positive grades in all exercises.
3. Two session exams are planned, the second date being a resit date.
4. The resit examination may be written, oral or written and oral. Formative assessment:

Partial reviews, covering individual topics of exercises, checking the level of advancement of the student's work, presented in the group forum, joint discussion on the presented solutions.

Adopted grading scale: 2.0; 3.0; 3.5; 4.0; 4.5; 5.0.

Summative grade: The grade obtained during the exam summarizing the series of lectures in the subject.

Adopted grading scale: 2.0; 3.0; 3.5; 4.0; 4.5; 5.0.

Programme content

Meeting 1 – presenter: dr hab. engineer arch. Sławomir Rosolski, prof. emergency Introduction – composition - general concept, definition

Lecture 1 - Theory of composition, lettering 1. Lettering - an outline of the history of writing 2. Lettering in advertising 3.

Lettering in writing

Lecture 2 - Theory of composition - point and line 1. Point 2. Line 3. Plane 4. Line and points in works great creators

Meeting 2 – presenter: Dr. Eng. arch. Tomasz Jastrząb

Lecture 3 - Geometric means of shaping space - point, line, plane - continuation of the topic

1. Point
2. Line - the role of lines in shaping architecture
3. Line of sight in architecture
4. Harmonic lines
5. Linear disharmony



6. Nets

7. Emotion and energy of the line

8. Plane

9. Plane in architecture

10. Basic types of surfaces shaped in architectural design

11. Hierarchy of lines on a plane

12. Energy center on the plane

13. Shaping building surfaces

14. Ceiling plane

15. Analysis of selected projects and implementations

Lecture 4 - Geometric means of expression of shaping space - solid. Movement in space

1. Solid

2. Form and space

3. Interdependence of positive and negative elements

4. Movement in space - elements of spatial communication

5. Elements of circulation

6. Analysis of selected projects and implementations

Meeting 3 – presenter: Dr. Eng. arch. Mieczysław Kozaczko

Lectures 5 and 6 - Space-time architectural composition

1. Matter of composition according to Vitruvius

2. Composition in time and space

3. The structure of the perceptual apparatus according to Strzemiński, Bielawski and Russell

4. Composition zones according to Le Corbusier

5. Zipf's law in architectural composition. The principle of appropriateness of the size of the form to its structure

6. Rules for readability of composition⁶

Meeting 4 – presenter: Dr. Eng. arch. Tomasz Jastrząb



Lecture 7 - Shaping architectural form

1. Form and its visual properties
2. Form - convention
3. Visual properties of the form
4. Shape
5. Regular and irregular forms
6. Convertibility of regular form
7. Formal geometric connections
8. Articulation of form
9. Theories of Juliusz Żórawski
10. Relationships between form and background
11. Simplicity of form
12. Field of formal action
13. Analysis of selected projects and implementations

Lecture 8 - Principles of spatial articulation, laws of composition

1. Axiality
2. Symmetry
3. Hierarchy
4. Rhythms - repetitions
5. Reference
6. Transformation
7. Laws of composition • law of hierarchy • law of equivalence of meanings • law of scoring • law unlimited continuity and penetration • law of rhythm • law of rhythm mutation • law of proportion • law of variable relationships / law of multiple proportions / • law of harmony • law of dynamics transformations
8. Analysis of selected projects and implementations

Meeting 5 – presenter: Dr. Eng. arch. Tomasz Jastrząb



Lecture 9 - Proportions - principles and theories

1. Material proportions
2. Structural proportions
3. Proportion systems
4. Theories of proportion
5. Man as a measure and goal
6. Canons of human proportions
7. The golden ratio
8. Le Corbusier's Modulor
9. Golden rectangle
10. Regulatory lines
11. Anthropomorphic proportions
12. Analysis of selected projects and implementations

Lecture 10 - Scale in architecture - the presence and absence of proper scale in architecture - scale dependence

from size - scale - references to the way of moving /man - car/ - scale - evaluation by

comparison /combination of opposites/ - falling out of scale, wrong scale

1. Categories of architectural scales • aesthetic scale • material scale • human scale • location scale
2. The scale of the material
3. Scale related to humans
4. Scale related to the situation
5. Choosing a scale variation
6. Change of scale
7. Monumental scale
8. Analysis of selected projects and implementations

Meeting 6 – presenter: Dr. Eng. arch. Tomasz Jastrząb

Lecture 11 - Space analysis8



1. Creation of space, intuition, place, program • intra-space • space
connected • adjacent spaces • common space

2. Analysis of selected projects and implementations

Lecture 12 - Types of spatial organization

1. Central organization

2. Line organization

3. Radial organization

4. Organization of teams

5. Organization of grids /modular organization/

6. Types of space organization - dependencies

7. Analysis of selected projects and implementations

Meeting 7 – presenter: dr hab. engineer arch. Sławomir Rosolski, prof. emergency and all presenters

exercises Summary - final exhibition. Exam

Exercise topics Exercise

1 Lettering – choose or develop a typeface of letters. Write any text. A3 format, graphic design.

Graphic sign – develop your own logo consisting of the initials of your name and surname. A3 format, graphic design.

Exercise 2 Introduce the composition Point balanced by lines. A3 format, graphic design.

Exercise 3 Transform a grid (e.g. 10 x 10 cm of 100 squares) by

elimination of original dependencies between the elements of the output system. During the transformation

may occur:

- fragmentation of the structure

- passing the nets

- elements falling out

- merging elements

- layout cutting.



Illustrate the individual stages of composition (grid) transformation. Present the final version in the third one

dimension, distinguishing forms that contrast with the surroundings in terms of dimensions, shape and location

(principle of hierarchy). Form of work: drawings and mock-up, A3 format.

Exercise 49

Proposal 1:

present the relationship between form and background based on any composition (urban space, interior, architectural object, sculpture in space, etc.). Illustrate the following principles in your work:

- the background is an integral part of the form - changing the background can change the form - the outline helps

form to stand out from the background

- operating the form involves setting it on the appropriate background. A3 format, graphic design.

Proposal 2:

subjective changes in an objectively immutable form - change the nature of any situation

spatial (existing or arranged) by changing the relationship between form and background. A3 format, graphic design.

Exercise 5 Analyze the composition of the facade of a historical building or its fragment (e.g. Old Rynek, Wilda, Jeżyce - Poznań). Distinguish composition axes, divisions, rhythms and relationships proportions of elements, scale of the object in relation to a human. Transpose the composition by changing the size of elements, mutating rhythms, combining divisions.

Illustrate each step of the exercise:

- registration of the existing state

- analysis

- transposition. The concept divided into stages should be presented on A3 format. Form of work: drawings, relief.

Exercise 6 Design two compositions consisting of three cubes connected together different features.



The first composition - coherent, symmetrical, static.

The second composition - free, asymmetric, dynamic. The structure of cubes can be any -

it is advisable to combine solid and openwork shapes. Any position in relation to the base. Cubes

They can be of different sizes (maximum 10x10x10 cm). The concept should be presented on A3 format in the form of two independent models. Form of work: sketches, mock-up. A3 format.

Exercise 7 Invisible Cities - free interpretation of the topic types of space organization -

an illustration of a selected story from the book "Invisible Cities" by Italo Calvino. A3 format, preparation graphic.

Teaching methods

LECTURES:

1. The educational cycle includes 7 meetings, during each of which two lectures are presented.
2. Lectures are in the form of multimedia presentations.
3. The structure and topics of the lectures, program content and a list of basic and supplementary literature are available on the Moodle PP eLearning platform (system supporting the teaching process and distance learning), available to logged in users.

EXERCISES:

1. The education cycle includes 7 classes (2x1.5h).
2. During each class, students present graphical or graphical and spatial interpretations of the training topics.

Bibliography

Basic

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Breakdown of average student's workload

	Hours	ECTS
Total workload	135	5,0
Classes requiring direct contact with the teacher	63	2,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	72	3,0

¹ delete or add other activities as appropriate