COURSE DESCRIPTION CARD - SYLLABUS

Course name

1 FUNDAMENTALS OF ARCHITECTURAL DESING 1

Course

Field of study

Architecture

Year/Semester

I/1

Area of study (specialization)

-

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

English

Form of study

full-time

Requirements

elective

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

0

Tutorials

0

Projects/seminars

45

Number of credit points

6

Lecturers

Responsible for the course/lecturer:

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Wydział Architektury

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Responsible for the course/lecturer:

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Wydział Architektury

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Prerequisites

- the student has basic knowledge covering key issues in the field of art history, including architecture,

- the student has a basic knowledge of development trends in the field of plastic arts and architecture,

- the student has the basic knowledge necessary to understand the social determinants of the architect's design activity, which has a direct impact on the surrounding space

- the student knows the basic methods, techniques, tools and materials used in solving simple tasks in the field of shaping an architectural composition.

- the student is able to fluently use freehand drawing techniques necessary in the design process,

- the student is able to obtain information from literature, databases and other properly selected sources, also in English or another foreign language recognized as the language of international communication; is able to integrate the obtained information, interpret it, as well as draw conclusions and formulate and justify opinions,

- the student is able to communicate using various techniques in the professional environment and in other environments,

- the student is able to prepare, in Polish (and a foreign language), considered to be basic for the fields of science and scientific disciplines, a well-documented study of problems related to the field of study being studied,

- the student has the ability to self-study.

- the student understands the need for lifelong learning; can inspire and organize the learning process of other people,

- the student is aware of the importance of issues undertaken by the architect and the related responsibility for the actions taken,

- the student is able to think and act in an entrepreneurial, creative and innovative way,

- the student is able to interact and work in a group, assuming various functions in it.

Course objective

- learning the basic issues in the field of ergonomics: anatomical and physiological factors determining the proper functioning of a human being,

- getting to know the basic relations between a person and a device or object,

- getting to know the basic issues related to the issues of shaping the architectural composition and future visions for its shaping,

- learning the basic issues related to the elements of urban composition,

- learning about the human, monumental scale,

- learning about the issues related to the shaping of colors and helioplasty,

- learning and improving the basic tools and materials helpful in presenting the achieved solutions in the field of architectural composition,

- learning the relationship between a flat drawing and a three-dimensional interpretation,

- creating abstract flat and spatial compositions evoking intended emotions, associations and moods,

- practicing mapping the spatial composition in the form of flat cases (projections, sections, views, etc.)

- practicing mapping the spatial composition in the form of mock-ups,

- practicing group work and finding out about different functions,

- practicing methods of presenting design solutions, composition of design boards.

Course-related learning outcomes

Knowledge

A.W1. 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, service facilities in residential complexes, public facilities in an open landscape or in an urban environment;

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

A.U1. design an architectural object by creating and transforming space so as to give it new value - in accordance with a given program that takes into account the requirements and needs of all users;

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.U8. prepare architectural and construction documentation in appropriate scales in relation to the conceptual architectural design;

Social competences

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:

TExercises: An important criterion for project evaluation will be the approach to the following issues, including:

- knowledge of the proportions of the human body and elements of ergonomics,

- the ability to perceive and analyze the human figure in the context of the environment, everyday objects, and architectural context,

- shaping an abstract architectural composition based on the principles resulting from theoretical studies,

- shaping an abstract architectural composition evoking specific planned reactions, emotions, associations and moods,

- mapping the spatial composition in the form of examples (projections, sections, views, etc.), axonometry, sketches and perspectives,

- mapping the spatial composition in the form of mock-ups,

- analysis of the architectural and urban context,

- the use of basic tools and materials helpful in the presentation of the achieved solutions in the field of architectural composition,

- presentation of design solutions in the form of composed charts,

- presentation of design solutions with hand-made text,

- presentation of design solutions made in an aesthetic and legible way.

The basis for taking the credit is obtaining credit for the exercises within the education module.
Summative assessment:

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

Programme content

1. EXERCISES:

topic nr 1 Human silhouette - parameters - introduction to ergonomics

The task consists in making preliminary measurements and sketches showing the parameters characterizing the human figure (standing, sitting, moving, with luggage, etc.).

Part 1: Individual work. Prepare the drawings graphically, complete and describe by hand. Compose the whole thing on the A-3 format

Hi. 2: Individual work. Make sketches in the field - preparation for selecting the location of an element in space (topic no. 4). Make sketches in the urban space of Poznań while walking along the route, for

example: Śródka - Ostrów Tumski - Garbary - Stary Rynek (A-5 or A-4 sketches). Supplement the sketches with synthetic descriptions of the features of this space and the observed elements of its equipment and functions.

Topic No. 2 Form and function

Design a form in space consisting of simple solids (cylinder, cuboid, pyramid according to the teacher's recommendations), present the project using a mock-up and graphically (projections, views, axonometry, elevations, sections). For a more analytical form of the task, the initial composition (flat) can consist of 3 or 5 selected basic figures; square, circle, triangle. The form can be used as a seat, shelter, or a resting place. In the mock-up and drawings, for the comparison of the scale, present a human figure with the use of measurement tests of the human figure from topic no. 1. The project should include: seed sketches, design sketches, final views, axonometries, projections, sections.

Part 1: Individual work. Preparation of projects including a flat composition.

Part 2: Individual work. Including the preparation of sketches, axonometry, perspectives, presenting the development of a flat composition in space. At this stage, working models appear, presenting spatial solutions and the phenomena of light and shadow.

Part 3: Individual work. Including the execution of the final, monochrome mock-up and then documenting the phenomena occurring on the mock-up in various lighting scenarios.

Part 4: Individual work. Presentation of design solutions on boards containing a description, drawings, perspectives, axonometries and photos.

TOPIC No. 3 Model of a complex structure - light, shadow, illumination, texture and color.

Make a model of a complex structure which is an interpretation of a complex urban or architectural composition. It is also allowed to continue the previous topic and use the created spatial composition, which should be enriched with elements of texture and color. Carry out research on the structure made by applying different textures, colors and lighting. The final mock-up is the basis for the photographic recording. make boards with descriptions.

Part 1: Individual work. Searching for various materials to make a mock-up.

Part 2: Individual work. Preliminary and conceptual sketches illustrating dependencies and rules in the selection of materials used.

Part 3: Individual work. Working mock-ups presenting dependencies and principles in the selection of materials used.

Part 4. Individual work. Presentation of design solutions on boards containing a description, drawings, perspectives, axonometries and photos.

TOPIC No. 4 Design, sketch, model and the context of the place

Design a spatial form (sketches, mock-up, section views), examine its impact on the surroundings in views and panoramas of the existing part of the city.

Part 1: Group work. Preparation of a terrain mock-up / site context as the basis for a future abstract architectural composition. Location agreed with the teacher (possible choice of space from exercise 1).

Part 2: Individual work. Preliminary and conceptual sketches presenting the search for form placed in context. Spatial composition made on the basis of analyzes. Working mock-ups.

Part 3: Individual work. Working models presenting the relationship between the designed form and the context of the place. The composition supported by analyzes made on the basis of the substantive foundation. The model also illustrates the principle of the selection of materials.

Part 4: Individual work. Presentation of design solutions on boards containing a description, drawings, perspectives, axonometries and photos

Teaching methods

1. Consultations and discussions with the tutor, site analysis, case study, field inquiry, conceptual design.

2. e-Kursy (a system supporting the teaching process and distance learning).

Bibliography

Basic

1. Ghirardo D., Architektura po modernizmie, Toruń 1999

2. Jencks Charles, The Language of Post-Modern Architecture, 1987

3. Jencks Charles, Modern Movement in Architecture, 1987

4. Jencks Charles, Architecture of Late Modern Architecture, 1989

5. Krier Rob, Urban Space, 1979.

5. Norberg-Schulz Christian, Meaning in Western Architecture, 1997.

6. Wejchert K., Elementy kompozycji urbanistycznej, Arkady, Warszawa.

7. Żurawski Juliusz, Theory of Building of Architectural Form, 1962.

8. E-script for the subject „Teoria podstaw projektowania architektonicznego z elementami ergonomii i Podstawy projektowania architektonicznego”.

Additional

1. Alexander Christopher, A Pattern Language. Towns, Buildings, Construction, 1977

2. Koolhaas Rem, Elements of architecture, 2018

3. Periodicals: architectural and urban journals, etc.

4. Ghel J., Życie między budynkami. Użytkowanie przestrzeni publicznych, Wydawnictwo RAM, Kraków 2009

5. Neufert E., Architects' Data, John Willey and Sons, 2012

Breakdown of average student's workload

	Hours	ECTS
Total workload	165	6,0
Classes requiring direct contact with the teacher	45	1,5
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [1]	120	4,5

[1] delete or add other activities as appropriate