



COURSE DESCRIPTION CARD - SYLLABUS

Course name

ARCHITECTURAL DESIGN OF SERVICE FACILITIES_1 (PROJECT)

Course

Field of study

ARCHITECTURE

Area of study (specialization)

-

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

I/4

Profile of study

general academic

Course offered in

polish/english

Requirements

compulsory

Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

45

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

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Responsible for the course/lecturer:

dr hab. inż. arch. Ewa Pruszewicz-Sipińska, prof. nadzw.

dr hab. inż. arch. Sławomir Rosolski, prof. nadzw.

prof. dr hab. inż. arch. Agata Bonenberg

dr hab. inż. arch. Radosław Barek prof. nadzw.

dr inż. arch. Agata Gawlak

dr inż. arch. Agnieszka Janowska

mgr inż. arch. Tomasz Mielczyński

mgr inż. arch. Piotr Bartosik

mgr inż. arch. Agnieszka Ośmielak-Stankiewicz

mgr inż. arch. Krzysztof Frąckowiak



Prerequisites

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- the student has detailed knowledge of technical construction drawing necessary for the presentation of architectural concepts;
- the student has a basic knowledge of development trends in the field of architectural design;
- the student has basic knowledge necessary to understand social, economic, legal and non-technical determinants of architectural design;
- the student has knowledge of art, mathematics useful for formulating simple tasks in the field of shaping an architectural composition;
- the student has detailed knowledge of technical drawing construction necessary for the presentation of architectural concepts;
- the student knows the basic methods, techniques, tools and materials used in solving simple tasks in the field of shaping an architectural composition.
- the ability to obtain information from literature, databases and other properly selected sources, also in English, integrate information, aggregate and interpret it, draw conclusions, and formulate and justify opinions,
- the ability to self-study,
- the ability to evaluate simple architectural solutions on a small scale,
- the ability to identify and formulate practical tasks in the field of architectural design of simple objects,
- the ability to design simple architectural objects on a small scale,
- the ability to make spatial models (mock-ups) allowing for simulations and experiments with the use of various materials, and to see non-technical aspects on their basis, including, inter alia, perceptual processes,
- the ability to use the techniques of hand drawing in the process of shaping a simple, small-scale architectural form, the ability to interpret and draw conclusions based on them.
- understanding the need for lifelong learning, the ability to inspire and organize the learning process of others,
- awareness of the importance and understanding of the non-technical aspects and effects of engineering activities including at this stage the shaping of small-scale architectural forms, e.g. a single-family house, including its impact on the environment and the related responsibility for decisions made,



- the ability to resolve dilemmas in the field of shaping simple functional systems and skills helpful in choosing the optimal solution,
- the ability to think and act in an entrepreneurial, creative and innovative way at the stage of preparing an architectural concept (creativity in the search for means of expression in the preparation of an architectural concept and obtaining materials helpful for their implementation).

Course objective

- getting to know the spatial context,
- learning the methodology when developing architectural concepts with a low degree of complexity, including service facilities,
- learning about the various technical and material means necessary for presentation of the architectural concept,
- learning about the basic relationships between a person and an object,
- learning the basic issues related to shaping the architectural composition ,
- learning about the basic issues related to the elements of urban composition,
- improving basic tools and materials helpful in presenting the achieved solutions in the field of architectural composition,
- learning the relationship between a flat drawing and three-dimensional interpretation,
- acquiring the ability to simultaneously shape projections and the body of the building,
- mastering the use of known functional diagrams in various configurations,
- developing the ability to graphically present an architectural concept (projections, sections, elevations),
- developing the skills of freehand drawing facilitating variants of solutions,
- developing the skills of building mock-ups (working and target).

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, service facilities in residential complexes, public facilities in an open landscape or in an urban environment;
- 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

- design an architectural object by creating and transforming the space so as 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 land development and building conditions;
- thinking and acting creatively, using the workshop skills necessary to maintain and expand the ability to implement artistic concepts in architectural and urban design;
- integrate information obtained from various sources, formulate their interpretation and critical analysis;
- communicating using various techniques and tools in a professional environment appropriate for architectural and urban design;
- prepare architectural and construction documentation in appropriate scales in relation to the conceptual architectural design;
- implementing the principles and guidelines of universal design in architecture, urban planning and spatial planning.

Social competences

- independent thinking to solve simple design problems;
- 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:

The conditions for passing the project are standardized requirements, uniform for all groups. This enables student works performed in all project groups and by different teachers to compete with each other.

Important project evaluation criteria:

- knowledge of functional assumptions necessary to develop the concept of a service facility with an appropriate degree of complexity (depending on the level of mastery of design art in different semesters);
- the ability to critically perceive and analyze the surroundings of the designed facility and to draw conclusions that are the basis and one of the guidelines for shaping the architectural form,
- method of shaping the architectural composition based on the principles resulting from theoretical studies,



- the quality of the correlation of the spatial solution with the functional layout,
- the quality of shaping the architectural composition evoking specific planned emotions, reactions, associations and moods,
- quality of the technical mapping of the spatial composition in the form of flat sections (projections, sections, views, etc.), axonometry, sketches and perspectives,
- the quality of the technical representation of the spatial composition in the form of mock-ups,
- the way of using basic tools and materials helpful in presenting the achieved solutions in the field of architectural composition,
- quality of presentation of design solutions in the form of composed / designed charts,
- aesthetics and legibility of presentation of design solutions.

The following elements are assessed:

- completeness of work in the analytical, design and descriptive parts, graphic quality of the project,
- adopted design solutions,
- connections of the designed building with the surroundings,
- relations between public, semi-private and private space,
- the way of meeting the psychophysical and social needs of users,
- correct resolution of technical issues related to the service facility,
- aesthetics and legibility of the graphic and descriptive parts as well as the mock-up.
- partial reviews, including individual project tasks, checking the advancement of the student's work, presented in the forum of the group, joint discussion,
- partial reviews, including individual design tasks, checking the degree advancement of the student's work, presented to other trainers - brainstorming, joint discussion,
- approved grading scale: 2.0; 3.0; 3.5; 4.0; 4.5; 5.0.

Summative assessment:

- final review, including the last project task, which is a summary of the knowledge and skills acquired during the implementation of previous projects, presentation on the forum of a group or at a collective review in the presence of other leaders,



- a comprehensive review of previously performed topics to verify the student's development in the context of the last project task,
- the condition for passing the course is obtaining positive marks from all reviews,
- approved grading scale: 2.0; 3.0; 3.5; 4.0; 4.5; 5.0.

Programme content

Principles of architectural design of service facilities; elementary compositional issues, functional and technical;

Elements of the architectural design of the service facility;

Elementary interdependencies between the design of service facilities and other areas of space shaping. Basic tasks and the role of a designer of service buildings; Technical equipment of public utility buildings, basic principles;

The form of the service facility:

- service facility in the vicinity;
- human scale;
- basic concepts of the iconosphere;
- basic issues related to shaping the form in service architecture;
- service facility in the city space;
- attractive space;
- communication service of service facilities,
- basic concepts and principles of constructing service space, space, place,
- ergonomics of middle-range human communities,
- service object technology: basic concepts related to service programming.
- basic concepts of parametric design,
- basic technical conditions for service facilities,
- basic technical equipment of public utility buildings.

DESIGN EXERCISES:



The semester exercise includes the design of an uncomplicated service facility located in a compact or free-standing development, fully adapted to the environment.

Analytical part:

analysis of situational and altitude maps and other cartographic data (orthophotos, aerial and satellite photos), qualitative analyzes: scenic studies, analysis of compositional relationships, studies of the architectural environment and genius loci, documentation of landscape values, quantitative analyzes: land absorption studies, recognition of the location potential, functional connections with the environment, pedestrian and road communication, identification of service infrastructure, obtaining current local law regulations, shortened analysis of building conditions and land development, SWOT analysis and determination of the profile of the object being the subject of design, determination of the social structure of target users.

Design part:

- creation of a functional program, division of the facility and plot area into functional zones;
- assigning partial functional solutions to functional zones;
- development of the object's body (taking into account the surroundings)

and its compositional structure (translation of utility syntax into formal syntax),

- adopting an appropriate architectural costume,
- merging the form and function of the complex into an integral architectural composition, selection of appropriate techniques for the implementation of the facility (appropriate construction and technical equipment of the building, adequate elements of land development - floors, greenery, lighting and accompanying facilities such as a playground for children, a garbage can, etc.) ,
- technical record of the architectural design and land development design,
- presentation of the architectural design using selected graphic methods and media, within standardized framework (board format, mock-up of the designed object on the plot),
- analysis of projects made in a student group, discussion of colleagues' presentations, Required elements of the project: drawing and photo inventory, analytical part, plot development plan, projections of all floors, sections (at least 2), elevations including the materials used and colors, perspectives: external and internal, descriptive part: area and cubature indicators, a summary of areas, an urban model (with the surroundings on a scale of 1: 500), an architectural model (with a plot of 1: 100)..

Teaching methods

Learning methods



Design exercises are of individual consultations conducted in the student group. Discussing and correcting the solutions used in the project with the participation of all students in the group; discussion of specific cases of repetitive design problems.

Bibliography

Basic

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Additional

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Breakdown of average student's workload

| | Hours | ECTS |
|---|-------|------|
| Total workload | 110 | 3,0 |
| Classes requiring direct contact with the teacher | | |
| Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹ | | |

¹ delete or add other activities as appropriate