



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Architectural Design of Residential Buildings_1

Course

Field of study

Architecture

Area of study (specialization)

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

II / 3

Profile of study

general academic

Course offered in

English

Requirements

Number of hours

Lecture

30

Laboratory classes

Tutorials

Projects/seminars

Other (e.g. online)

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

dr hab. inż. arch. Maciej JANOWSKI

Responsible for the course/lecturer:

dr inż. arch. Adam SINIECKI

Wydział Architektury

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Prerequisites

The student should have basic knowledge of the basics of architectural design (fundamentals of architectural design), theory of composition in architectural design, basic technologies and materials used in construction (civil engineering and materials).

Course objective

- presentation of issues related to designing human residential environment of low or medium intensity,
- presentation of types of single family housing,
- development of the ability to analyze of place in the urban planning and architectural scale,
- presentation of typology of detached house,
- application of known functional schemes in different configurations,
- development of the ability to simultaneous designing the views and block of building,



- development of the ability to graphic presentation of architectural conception (views, sections and facades),
- development of the ability to manual drawing giving facilities for solutions differentiation,
- development of the ability to building models (working and target models),
- improving the knowledge and ability to preparation of conceptual drawings (views, sections and facades) based on building knowledge.

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

- make a critical analysis of the conditions, including the valorization of the land development and building conditions;
- integrate information obtained from various sources, formulate their interpretation and critical analysis.

Social competences

- 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:

A series of lectures of "Theory And Principles Designing Housing Architecture 1" ends with the exam. The basis for participation in exam is credit of classes within the learning module. The condition of credit is to obtain a positive assessment of the final exam.

Programme content

Course of "Theory And Principles Designing Housing Architecture (1)" covers a series of lectures:

Lecture no. 1: Introduction - The lecture introducing to issues related to design of housing, issues of residential environment and specifics of conditions.

Lecture no. 2: The role of analyzes in the design process. - Overview of the pre-design study (basic analyzes related to the design process of a single-family house). How do the conclusions of the analyzes - design guidelines affect the project?



Lecture no. 3: Functions of apartment – and technical specifications. The lecture develops and details the issues related to basic functions, which should be fulfilled by apartment, house in the light of knowledge about forming the functions, ergonomics, social relations etc. and in the context of current building legislation and technical specifications, which should be fulfilled the buildings and their location.

Lecture no. 4: Technical installations at home - Influence of the applied installations on the functioning and exploitation of the house.

Lecture no. 5: Technical and material solutions in a single-family house - Overview of popular systems and technologies used in single-family housing and how they affect investment costs and the subsequent functioning of the building.

Lecture no. 6: The residential environment - During the lecture are presented issues consisting on concept of “residential environment” including social, spatial, functional and infrastructural components in apartment, apartment building and its environment, as well as in the urban planning context.

Lecture no. 7: How to design a good house ? - During the lecture, examples of interesting and functional houses will be discussed.

Lecture no. 8: A bit of history #1... Fallingater House / Edgar J. Kaufmann House.

Lecture no. 9: A bit of history #2... two perfect villas: Tugendhat Villa and Villa Maria.

Lecture no. 10: Adaptations and reconstructions - During the lecture are presented the adaptations of facilities with primal function different than residential (industrial, military function) to housing functions (e.g. lofts) and reconstructions of existing apartment and adaptation their functional layout to current housing needs.

Lecture no. 11: The shelter - During the lecture are presented the examples of solutions, which providing the basic elements to protect human from adverse external conditions and provide minimum to living under certain conditions.

Lecture no. 12: House, apartment and Vernacular and neo-Vernacular architecture - During the lecture are presented: form, function in the Vernacular housing architecture and local materials and ecological aspects related to their use. Also are presented the possibilities of contemporary use of neo-Vernacular ideas in housing architecture.

Lecture no. 13: The architecture of residential environment designing with support of public funds - During lecture are presented the issues of experiences related to designing the residential environment created with support of public funds.

Lecture no. 14: Social housing - Criteria and features of distinguish in the context of sustainable development idea

Lecture no. 15: The principles of designing housing architecture (1) - Summary and evaluation. During the lecture will be summed the series of lectures and will be carried out the evaluation of assimilation



process of information from lectures, including the assessment of value of absorption level of issues presented in the scope of theory and principles of designing the housing architecture (1).

Teaching methods

Course of "Theory And Principles Designing Housing Architecture (1)" covers a series of lectures. During the lectures, discussions with students are also conducted.

Bibliography

Basic

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Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3
Classes requiring direct contact with the teacher	30	3
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	45	

¹ delete or add other activities as appropriate