COURSE DESCRIPTION CARD - SYLLABUS

Course name

Architectural Design of Workplaces/project_1

Course

Field of study

Architecture

Year/Semester

IV/8

Area of study (specialization)

-

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

polish/english

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

45

Number of credit points

5

Lecturers

Responsible for the course/lecturer:

prof. dr hab. inż. arch. Wojciech Bonenberg

email: wojciech.bonenberg@put.poznan.pl

Wydział Architektury

ul. Jacka Rychlewskiego 2, 61-131 Poznań

Responsible for the course/lecturer:

prof. dr hab. inż. Oleg Kapliński

dr hab. inż. arch. Jerzy Suchanek, prof. nadzw.

dr hab. inż. arch. Magdalena Gyurkovich

dr inż. arch. Piotr Zierke

dr inż. arch. Marcin Giedrowicz

dr inż. arch. Marta Pieczara

mgr inż. arch. Ewa Angoneze-Grela

mgr inż. arch. Izabela Piklikiewicz-Kęsicka

mgr inż. arch. Agnieszka Kasińska-Andruszkiewicz

mgr inż. arch. Paweł Kobryński

Prerequisites

• The student has an ordered, theoretically founded general knowledge covering key issues in the field of designing the architecture of workplaces,

• The student has a general knowledge of development trends in the field of workplace architecture design,

• The student has general knowledge necessary to understand the social, economic, legal and non-technical determinants of designing workplace architecture.

• The student is able to obtain information from literature, databases and other, properly selected sources, is able to integrate information, interpret it, as well as draw conclusions and formulate and justify opinions,

• The student is able to make a critical analysis of the way of functioning and assess the existing solutions, systems and technological processes,

• Has the ability to apply the learned theory to solve practical tasks

• Can think and act in an entrepreneurial manner

• They are aware of the social and economic aspects of the architect's work

• Is aware of the need to broaden his theoretical knowledge so that he can find a justification for its application while practicing his profession. Understands the necessity of lifelong learning

Course objective

1.obtaining skills in the design of complex architectural structures,

2.gaining experience in the field of architectural design of workplaces supported by appropriate theoretical knowledge,

3. learning about modern methods of searching for innovative design solutions with the use of conceptual modeling, CAAD, analysis of functional connections,

4. acquiring the ability to design work rooms (in particular offices), hygienic and sanitary rooms and gastronomic rooms at the workplace.

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;

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

Social competences

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:

Passing conditions

• Regularity and timeliness of studying. Implementation of applicable design tasks.

• Attention is paid to the effective use of the hours of project exercises provided for in the program for the actual work on the project during classes in the university classroom, under the supervision of designated employees of the Z1 plant.

• Participation in classes (this applies to both lectures and exercises).

The lack of active presence in more than 1/3 of the classes makes it impossible to complete the course (even in the case of submitting a term paper). This requirement is related to the inability to systematically control the student's independent implementation of the project in the event of absence from classes.

Formative assessment

- knowledge assessment and group presentations, joint analysis and discussion

- evaluation of the presented paper with conclusions for discussion

- presentation on a CD with a detailed outline and a detailed bibliography

- participation in discussions and formulation of final conclusions.

Assessment scale: 2.0, 3.0; 3.5; 4.0; 4.5; 5.0

Summative assessment:

- the grade being the average of the partial grades (knowledge and drawing skills)

Assessment scale: 2,0; 3.0; 3.5; 4.0; 4.5; 5.0

Obtaining a positive grade for the module depends on the student achieving all the learning outcomes listed in the syllabus.

Programme content

DESIGN EXERCISES:

Development of a conceptual design for a creative industry plant.

Stage I. Analysis: 2-week study phase of a design task, enabling the commencement of conceptual work. Includes:

- study and discuss the received set of information about the topic.

- choice of technology (type of creative industry). Preliminary calculation of the space requirement based on the functional and operational program and the adopted number of employees.

- function studies, preparation of functional and technological connection diagrams (variants). Estimation of the area and shape of the plot needed, taking into account the reserve of land for future expansion.

- preliminary sketches of variants of land development (1: 500).

- initial concepts of the architectural form made in the form of simple working models (e.g. cardboard, polystyrene). During the exercises, the student should have tools (scissors, glue, adhesive tape) to work with the model in the classroom. A digital camera can be useful for capturing emerging ideas.

Stage II. Concept: a 3-week stage of creative work on a design concept, establishing the architectural and urban vision of a creative industry plant. The architectural and urban concept of the plant on the selected plot includes:

- preliminary development of 3 different variants of spatial development with the use of working models. Variants should differ in composition, intensity of development (number of storeys), degree of density of plant.

- study sketches.

- selection of the best variant for further development. 4

Stage III. Concept development: a 6-week stage of creative work on a selected design variant, in terms of functionality, technology and composition. It includes the development of an architectural design concept of a creative industry plant:

- land development plan (master plan) of the selected variant (1: 500). The plan should take into account: buildings, car roads, parking lots for employees, parking lots for customers, maneuvering areas (delivery and export of goods), footpaths, high and low greenery, arrangement of "small architecture".

- traffic patterns (flow of people and materials) in the master plan. Collision point analysis. □ the silhouette of the planned plant inscribed in the landscape context (1: 500).

- development of an architectural design of a fragment (or the whole) of the plant selected with the participation of the tutor (1: 200). In the case of developing a fragment, the project should include hygienic and sanitary facilities for the staff, administrative and office part and gastronomy. The accuracy and scope of the study should be similar to the "architectural concept" stage (according to SARP standards).

Stage IV. Graphic design (architectural marketing): 4-week stage of work on the graphic representation of the project. Includes:

- graphic design of "clean" boards (50x70 cm format). This study is the result of the creative achievements to date and is an important element of the promotion of the student's work. It significantly influences the final grade. It should present the entire design cycle in an attractive graphic form: preliminary compositional variants, selection of the best variant, development plan and the architectural concept of the selected variant. When assessing, emphasis will be placed on the correctness of functional solutions, innovation and creativity of the proposed architecture, as well as the ability to present the most important advantages of the project.

Teaching methods

1. Task lecture: from theoretical basics to the analysis of practical model realizations.

2. Lecture with multimedia presentation, presentation of examples from various investment documentation.

3. Project task / project method.

4. eLearning Moodle (a system supporting the teaching process and distance learning).

Bibliography

Basic

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Werner W.A. Proces inwestycyjny dla architektów. Oficyna Wydawnicza Politechniki Warszawskiej. Warszawa 1994.

Additional

Charytonowicz J. Zasady Kształtowania laboratoryjnych stanowisk pracy. Oficyna Wydawnicza Politechniki Wrocławskiej. Wrocław 2004.

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Szparkowski Z. Architektura współczesnej fabryki. Wydawnictwo OWPW. Warszawa 1999.

Breakdown of average student's workload

	Hours	ECTS
Total workload	150	5,0
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]	105	3,5

[1] delete or add other activities as appropriate