



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Architectural Design of Workplaces_2

Course

Field of study

Architecture

Area of study (specialization)

-

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

I/1

Profile of study

general academic

Course offered in

polsih/english

Requirements

compulsory

Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

Tutorials

0

Projects/seminars

45

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

prof. dr hab. inż. arch. Wojciech Bonenberg

e-mail: wojciech.bonenberg@put.poznan.pl

Wydział Architektury

ul. Jacka Rychlewskiego 2, 61-131 Poznań

tel. 61 665 32 62

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 Kobryńskibryński

Prerequisites



- the student has an ordered, theoretically founded detailed knowledge covering key issues in the field of designing the architecture of workplaces
- the student has detailed knowledge of development trends in the field of designing architecture of workplaces
- the student has detailed knowledge necessary to understand the social, economic, legal and non-technical conditions of designing the architecture of workplaces
- the student is able to obtain information from literature, databases and other, properly selected sources, also in English, can 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 evaluate the existing solutions, systems and processes
- is able to communicate using various techniques in the professional environment and in other environments
- the student understands the need for lifelong learning, can inspire and organize the learning process of other people
- the student is aware and understands the non-technical aspects and effects of engineering activities, including its impact on the environment and the related responsibility for decisions made
- is able to interact and work in a group, taking various roles in it
- is aware of the social role of a technical university graduate, and especially understands the need to formulate and convey to the society, in particular through the mass media, information and opinions on the achievements of technology and other aspects of engineering activities; makes efforts to provide such information and opinions in a generally comprehensible manner.

Course objective

1. Acquiring skills in the design of complex architectural structures.
2. Gaining experience in the issues of architectural design of workplaces supported by appropriate theoretical knowledge.
3. Understanding 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 in the workplace.

Course-related learning outcomes

Knowledge

- A.W1. architectural design of various levels of complexity, from simple tasks to objects with complex



functions in a complex context, in particular: simple facilities taking into account the basic needs of users, single and multi-family housing, service facilities in residential complexes, public facilities and their complexes, different scale and complexity in open landscapes or in an urban environment;

A.W6. advanced analysis methods, tools, techniques and materials necessary to prepare design concepts in an interdisciplinary environment, with particular emphasis on inter-branch cooperation;

Skills

A.U1. design a simple and complex architectural object, creating and transforming the space so as to give it new value - in accordance with the set or adopted program, taking into account the requirements and needs of all users, spatial and cultural context, technical and non-technical aspects;

A.U4. formulate a critical analysis of the conditions, including the valorization of the land development and building conditions formulate conclusions for design and spatial planning, forecast the processes of transformations in the settlement structure of towns and villages, and predict social effects of these transformations

A.U5. evaluate the usefulness of advanced methods and tools for solving simple and complex engineering tasks, typical for architecture, urban planning and spatial planning, and select and apply appropriate methods and tools in design;

A.U8. think creatively and act, taking into account the complex and multi-faceted conditions of design activity, as well as expressing own artistic concepts in architectural and urban design;

A.U9. integrate information obtained from various sources, formulate their interpretation and critical, detailed analysis and draw conclusions from them, as well as formulate and justify opinions and demonstrate their relationship with the design process, based on the available scientific achievements in the discipline;

A.U10. communicate with the use of various techniques and tools in a professional and interdisciplinary environment in the scope appropriate for architectural and urban design and spatial planning;

A.U11. work individually and in a team, including with specialists from other industries, and take a leading role in such teams;

A.U12. estimate the time needed to complete a complex project task;

A.U13. formulate new ideas and hypotheses, analyze and test novelties related to engineering and research problems in the field of architectural and urban design and spatial planning;

A.U14. prepare architectural and construction documentation in appropriate scales in relation to the conceptual architectural design;

A.U15. implement the principles and guidelines of universal design in architecture, urban planning and spatial planning.



Social competences

A.S1. effectively use imagination, intuition, creative attitude and independent thinking in order to solve complex design problems;

A.S2. speak and presentat publicly;

A.S3. take the role of a coordinator of activities in the project process, manage work in a team and use interpersonal skills (resolving conflicts, negotiating skills, delegating tasks), comply with the rules of working in a team and take responsibility for joint tasks and projects;

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Passing conditions

- Systematic and timely study. 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 execution of the project in the event of absence from the classes.

Formative assessment

- knowledge assessment and presentations in the forum of the group, 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:

- evaluation of the term paper containing the required scope of the study
- the assessment takes into account the grades forming from partial credits

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

Development of a conceptual design for a creative industry plant.

Stage I. Analysis:

A 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.
- studies of functions, 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 (eg 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 the 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 plant density.
- study sketches.
- choosing the best variant for further development

Stage III. Working on a conception :

A 6-week stage of creative work on the 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.
- outlines 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 presentation of the project. Includes:

graphic design of the boards "clean" (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. Project.
2. eLearning Moodle (a system supporting the teaching process and distance learning).

Bibliography

Basic

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Breakdown of average student's workload

	Hours	ECTS
Total workload	90	3,0
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	45	1,5

¹ delete or add other activities as appropriate