COURSE DESCRIPTION CARD - SYLLABUS

Course name
Architectural Design of Workplaces_1 [S1Arch1E>PAMP]

Course

Field of study
Architecture

Year/Semester
4/8

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
English

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
15

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
45

Number of credit points

7,00

Coordinators

Lecturers

Prerequisites

• student has explicit, theoretically based knowledge including the key issues of designing workplaces architecture, • student has general knowledge of development trends in the scope of designing workplaces architecture, • student has knowledge required for the understanding of social, economic, legal and other determinants outside the engineering field of designing workplaces architecture • student can acquire information from publications, data bases and other Polish and English sources, can interpret the said information and draw conclusions as well as voice and justify opinions • student can carry out critical analysis of the manner of operation and assess the existing solutions, systems and processes • student has the ability to apply the learned theory to solve practical tasks • student can think and act in an entrepreneurial manner • student is aware of the social and economic aspects of the architect's work • student 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. get the ability to designing the complex architectural structures, 2. acquire experiences in the issues of architectural designing workplaces supported by relevant theoretical knowledge, 3. learn modern methods of searching innovative design solutions with using the conceptual modeling, CAAD, analyses of functional connections, 4. get the ability to designing the work premises (especially office premises), hygienic and sanitary premises and gastronomic premises in workplace

Course-related learning outcomes

Knowledge:
Student knows and understands:
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.W3. records of local spatial development plans to the extent necessary for architectural design;
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:
Student can:
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:
Student is capable of:
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 - LECTURES:
• The cycle of lectures ends with a written examination in the form of a test. There are two dates of examinations predicted, the second one is the resit examination.
• Summary grade: - grade obtained in the written examination. Adopted grade scale: 2,0 (unsatisfactory) 3,0 (satisfactory) 3,5 (satisfactory plus) 4,0 (good) 4,5 (good plus) 5,0 (very good).

PASSING CONDITIONS - PROJECTS:
• 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 uploaded to ekursy system 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

Lecture and project classes provide an introduction to the design of buildings in which work is carried out. During their duration, students will learn the main principles of shaping such buildings (including manufacturing plants, office buildings, service buildings), as well as the complex issues of designing their form, function and construction.

Course topics

LECTURES
(7 two-hour lectures in the winter semester + 1 one-hour lecture to test acquired knowledge):
Specific isues:
Lecture 1. Hygienic and sanitary premises. Review of existing regulations. Types of sanitary and hygienic premises. Architectural requirements related to sanitary and hygienic premises.
Lecture 2. Cloak-rooms and working lavatories. The degree of employees soiling in technological process. Basic types of cloak-rooms and working lavatories. Functional systems. Calculation principles of number of sanitary facilities and superficial demand. Examples of architectural solutions.
Lecture 3. Architecture of office buildings. Technology of office work. Places of office work. Process of office work. Spatial interpretation of office technology. Basic spatial and functional layouts of offices. Office building. Division of surfaces. Flexibility and multifunctionality. Structural and installation specifics. Management of office building. Ergonomics of office work. Office landscape.
Lecture 4. Gastronomy. Technological and sanitary requirements. Dependent and independent canteens (with full production cycle). Technology of processing and food serving. Functional schemas. Examples of design solutions.
General issues:
Lecture 5. Industry in the city. Strategies of workplaces location in spatial and functional structure of urbanized areas. Production and urbanization. Workplaces, places of recreation and places of residence in the city. Transportation needs on line work – leisure – flat. Development of motorization – spatial effects.
Lecture 6. Dynamics of industry. Characteristic periods of development. Industrialization. Spatial expansion. Social transformations. Impact on the city infrastructure. The downfall of traditional interests of industry. Transport „work – house" as a main problem of spatial development of the city. Outside the city strategies of modern industry location. Degradation of old brownfield. Suburbanization phenomena, depopulation of city centers. Depreciation of downtown buildings in connection with downfall of traditional interests of industry. New "industries of culture" as a chance for revitalization of downtown areas.
Lecture 7. Architecture of industry. Methods of searching the innovative design solutions. Principles of designing. Modularity. Zoning. Repeatability. Flexibility. Multifunctionality. Mobility. Compositional order. The investment process in industry. Stages of preparation and realization of industrial plant project.

PROJECTS:
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 (100x70 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. eKursy (a system supporting the teaching process and distance learning).

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Additional:
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Breakdown of average student's workload

	Hours	ECTS
Total workload	175	7,00
Classes requiring direct contact with the teacher	60	2,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	115	4,50