# COURSE DESCRIPTION CARD - SYLLABUS

Course name
Architectural design of Recreation Facilities [S1Arch1>PAObR]

## Course

Field of study
Architecture

Year/Semester
3/6

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 (e.g. online)
0

Tutorials
0

Projects/seminars
60

## Number of credit points

5,00

## Coordinators

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## Lecturers

## Prerequisites

the student has basic knowledge of the history of architecture and urban planning, the basics of architectural and urban design and landscape architecture; - has basic knowledge necessary to understand social, economic, legal and other non-technical conditions of architectural and urban design; - the student is able to obtain information from literature, databases and other, properly selected sources, also in English, can integrate and interpret information, as well as draw conclusions and formulate and justify opinions, - the student is able - in accordance with the given specification - to design an architectural object with a small cubature and degree of complexity, - the student understands the need for lifelong learning, 2 - can work on a designated task independently and work in a team, assuming various roles in it

## Course objective

none

## 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.W2. urban design in the scope of implementation of simple tasks, in particular: small building complexes, local spatial development plans, taking into account local conditions and connections, as well as forecasting transformation processes in the settlement structure of towns and villages;
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;
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A.U3. prepare planning studies concerning spatial development and interpret them to the extent necessary for designing in an urban and architectural scale;
A.U4. make a critical analysis of the conditions, including the valorization of the land development and building conditions;
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:

Learning outcomes presented above are verified as follows: The course on the Theory of Recreational Architecture is the theoretical foundation for the design of recreational facilities. Lectures and design exercises end with an independent credit. Students receive a subject program with a list of applicable issues and required design studies. There are two credit deadlines for each type of course. The second term is a correction term.
1. Formative assessment
Architectural design of recreational facilities - forming assessment includes:
Assessment of active participation in classes, discussion in the group forum and involvement in project work,
Assessment of the timeliness and quality of the performance of tasks during the periodic and final review,
Assessment of the group by selecting the best three final studies.
Assessment scale: 2.0; 3.0; 3.5; 4.0; 4.5; 5.0
2. Summative assessment:
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Lectures: a positive result of a multiple-choice test checking knowledge of the topics covered in the lectures
Classes: final grade for the architectural design of recreation facilities
Accepted grading scale: 2.0; 3.0; 3.5; 4.0; 4.5; 5.0
Assessment scale: 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.
Laboratory classes:
Formative assessment:
partial reviews, covering individual project tasks, checking the progress of the student's work, presented in the group forum, discussion
Accepted grading scale: 2,0; 3,0; 3,5; 4,0; 4,5; 5,0.
Percentage of grades: 0–50% - 2.0 (insufficient); 50-60% - 3.0 (sufficient); 60-70% - 3.5 (sufficient plus); 70-80% - 4.0 (good); 80-90% - 4.5 (good plus); 90-100% - 5.0 (very good).
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 at the group forum or at a collective review in the presence of other tutors
Accepted grading scale: 2,0; 3,0; 3,5; 4,0; 4,5; 5,0.
Percentage of grades: 0–50% - 2.0 (insufficient); 50-60% - 3.0 (sufficient); 60-70% - 3.5 (sufficient plus); 70-80% - 4.0 (good); 80-90% - 4.5 (good plus); 90-100% - 5.0 (very good).

## Programme content

Lectures: Theory of architecture or recreation
1. The structure of the agglomeration's recreational development. Systematization of concepts: recreation, leisure, tourism. Social characteristics of recreation. Daily, weekend and seasonal rest zones. Attractiveness, accessibility and capacity of recreational areas. Typology and distribution of recreational areas and facilities in the city (housing estate, district, general city).
2. Facilities and devices for everyday recreation. Functional complexes of recreation centers. Legal requirements and rules for designing sports halls, including safety and visibility rules. Types of game fields. Forms and structures of stands. Structural systems of sports halls. Standards for the spatial organization and equipment of multifunctional sports halls.
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3. Principles of designing facilities for water recreation. Indoor swimming pools: zones, functional and technological schemes, FINA requirements, examples of implementation.
4.Weekend and holiday recreation centers. Recreational architecture in non-urbanized areas. Models of location and functional and spatial layouts of equestrian recreation centers. Designing indoor riding arenas.
5. Recreational development of urban waterside areas, taking into account landscape and natural values and flood hazards. Principles of designing marinas, river harbours, rowing tracks, tourist infrastructure. Functional, landscape, eco-hydrological, communication (waterways) and legal conditions for the development of river valleys.
6. Recreational functions in architecture and urban planning - an outline of historical development. Evolution of sports and recreation assumptions from antiquity to the present day. The genesis of recreational functions in the city.
Classes - Architectural design of recreational facilities
The exercise program includes the development of a recreational area development project and an architectural concept of a recreational and sports facility (e.g. a multifunctional sports hall, indoor swimming pool, water sports center, equestrian center, recreation center, hotel, guest house, etc.) with parking, sanitary and catering facilities, and audience for 200 people. The program is implemented in 3 stages:
Stage 1 - inventory and urban and landscape analyzes of the location area in order to define problems and formulate design guidelines. Stage 1 is a simulation of work in multi-sector teams (2-3 people), whose members are tasked with collecting and analyzing the conditions in the field of: the quality of the natural environment and landscape attractiveness, social and cultural conditions, the functions of the areas and the structure of recreational development, types and quality of buildings, technical and transport infrastructure (scale 1: 25,000, 1: 10,000, 1: 2,000). The stage ends with the SWOT analysis, presentation of conclusions, formulation of problems, guidelines and design constraints.
Stage 2 - land development concept. Individual work (possibly in teams of 2-3 people) consisting in developing a functional program and alternative concepts for the development of the plot (scale 1: 1000, 1: 500). The project should include: a. Zoning: division of the area into functional zones, b. Transport and communication: functional and technological connections, c. Greenery: spatial arrangement and functions of green areas; d. Buildings: spatial arrangement and functions of objects; e. Landscape context: compositional and cultural relations. The stage ends with a review of variant concepts, which are subject to multi-criteria analysis in order to select the optimal version of the land development design.
3rd stage - architectural concept of a recreational and sports facility. An individual task (possibly in teams of 2) consisting in developing an architectural concept of the facility according to established specification, selection of appropriate functional, structural and formal solutions integrated with the site
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development design and landscape context (scale 1: 200, 1: 100 - plans, sections, elevations, visualizations, working model).

## Course topics

1. Obtaining knowledge in the field of historical development of recreational functions and contemporary trends in the design of recreational development and architectural objects for sport and recreation,

2. Knowledge and ability to analyze the structure of recreational development of a region, agglomeration, city, housing estate and the principles of planning and programming elements of recreational development and designing various types of facilities and recreational areas in cities, suburban and rural areas,
3. Acquisition of knowledge and skills in the field of methods of analysis, synthesis, programming and design of medium-sized recreational and sports facilities, as well as responsible use of the recreational values of the cultural and natural environment
4. Getting to know the formal and legal conditions of designing various sports and recreation facilities (including the principles of universal design, safety and visibility) and applying them in the design of a selected type of recreation facility
5. Preparation of architectural and construction documentation in appropriate scales in relation to the conceptual design of a selected type of sports and recreation architecture facility

## Teaching methods

1. Lecture with multimedia presentation.
2. Project.
3. eLearning Moodle (a system supporting the teaching process and distance learning).

## Bibliography

Basic Active Design. Planning for health and wellbeing through sport and physical activity © Sport England 2015 https://www.sportengland.org/media/3426/spe003-active-design-published-october-2015-email-2.pdf
Neufert P., Architects' Data, Blackwell Publ, 2019
Regulation of the Minister of Infrastructure of April 12, 2002 on technical conditions to be met by buildings and their location.
Sports Halls. Design & Layouts. Creating sporting opportunities in every community. Guidance Note. Updated & Combined Guidance. February Revision 005. © Sport England 2012 https://www.sportengland.org/media/4330/sports-halls-design-and-layouts-2012.pdf
Swimming Pools Updated Guidance for 2013. May Revision 004 © Sport England 2013 https://www.sportengland.org/media/4187/swimming-pools-dgn-2013.pdf
Sturzebecher P., Ulrich S., Architecture for sport. Wiley-Academy, Great Britain 2002.
E-script for the subject "Theory of Recreational Architecture and Architectural Design of Recreational Objects".
Additional Bartkowicz B., Wpływ funkcji wypoczynku na kształtowanie struktury przestrzennej miast. Politechnika Krakowska, monografia 33, Kraków 1985.
Błądek Z., Hotele. Palladium, Wągrowiec 2001
Susan L. Hutchinson, Erica Brooks, Physical Activity, Recreation, Leisure, and Sport: Essential Pieces of the Mental Health and Well-being Puzzle, Report for The Nova Scotia Mental Health Strategy Consultation, June 2011, http://www.recreationns.ns.ca/wp-content/uploadhere/2012/05/MentalHealthLit.pdf
Januchta-Szostak A., Poznań Waterfront – Warta Valley. Revitalisation of the relationship with the river, monografia, Wyd. Politechniki Poznańskiej, Poznań 2011.
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Mieczkowski, Z., Environmental issues of tourism and recreation. University Press of America, Lanham 1995
McLean DD, Hurd AR, Rogers NB, Kraus' Recreation and Leisure in Modern Society, 7th Edition. Jones and Bartlett. p. 1ff, 2005
Mokrzyński J., .Architektura wolnego czasu. Arkady, Warszawa. 1973
Wirszyłło R., Urządzenia Sportowe. Arkady, Warszawa 1966
Wimmer M., Stadium Buildings: Construction and Design Manual. DOM Publishers 2015
Thomas S. Yukic. Fundamentals of Recreation, 2nd edition. Harpers & Row, 1970, Library of Congress 70-88646. p. 1f

## Breakdown of average student's workload

| | Hours | ECTS |
|---|---|---|
| Total workload | 125 | 5,00 |
| Classes requiring direct contact with the teacher | 75 | 3,00 |
| Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation) | 50 | 2,00 |