

### POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

# **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Rural Architecture Design [S1Arch1E>PR]

Course

Field of study Year/Semester

Architecture 3/6

Area of study (specialization) Profile of study

general academic

Level of study Course offered in

first-cycle English

Form of study Requirements full-time compulsory

**Number of hours** 

Lecture Laboratory classes Other 0

15

**Tutorials** Projects/seminars

0 45

Number of credit points

4,00

Coordinators Lecturers

## **Prerequisites**

- student has a basic knowledge about trends in the development in the field of urban design and principles of vernacular architecture - student has an ability to obtain the information from literature, databases and other properly selected sources, can integrate and interpretate various pieces of information as well as draw conclusions and formulate and justify opinions - student can make a critical analysis of the functioning of the designed area and evaluate the existing functional spatial solutions - student understands the need of lifelong learning, can inspire and organise the learning process of other peeople - student can identify and formulate the specification of practical tasks in the field of urban design - student is aware of nontechnical aspects and consequences of engineering activities, including their influence on the environment and responsibility for the decisions - student identifies and resolves correctly dilemmas in terms of various spatial situations in the urban scale

# Course objective

I. Lectures: The set of lecture topics, which aim is getting knowledge about: - history of rural settlement, characteristic types of village and filed layouts in Europe, transformations of the rural landscape in the process of development of settlement and agriculture, origin of typical farm house - spatial layout and design principles of the farmstead, farm buildings and facilities - acquiring the ability to plan the location and design complexes of specialized multifunctional farms (functional and compositional guidelines. regionalism in architecture, design principles in line with the local construction tradition of vernacular architecture) - contemporary problems and threats to rural areas in Europe - planning methods and instruments for the proper management of rural areas, in accordance with the concept of sustainable development and the idea of rural renewal - protecting cultural heritage of rural areas and making use of its potential for new forms of economic activation of villages (agritourism, local industry, thematic villages etc.) II. Project: Promoting knowledge in the field of urban and architectural designing in rural areas, in the spirit of vernacularism, with respect to spatial tradition and natural values of the place. It is particurally important to convince students to be sensitive for designing in a way that combines functional and technical requirements for agricultural buildings with aesthetic, compositional and landscape values. In an urban planning context that means primarily searching for architectural solutions suitable for the specificity of the surrounding landscape, emphasizing the agricultural functions of the area and its landscape values. Looking for architectural typology and regional spatial specifity from an anthropogenic perspective shall lead to find suitable forms of buildings and greenery.

# 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;

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:

#### I. Lectures:

The cycle of lectures ends with a written examination in the form of a test (including descriptive and drawing tasks). 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)

II. Project:

Formative assessment:

Assessment of the learning outcomes takes place at each of the several stages of the work on the project in the group forum.

Summary grade:

Summary evaluation consists of: assessment of the knowledge, student's activity and involvement in the term work as well as substantive and graphic quality of the final project presented in the forum of the group (joint analysis and discussion)

Adopted grade scale:

2.0 (unsatisfactory)

3,0 (satisfactory)

3,5 (satisfactory plus)

4,0 (good)

4,5 (good plus)

5,0 (very good)

# Programme content

The module comprises theoretical lectures and practical design tasks connected by a common theme. The lectures explore the intricacies of designing rural buildings, encompassing their practical aspects (such as the siting of facilities and equipment, and the arrangement of specialized farms) and their aesthetic relationship with the rural landscape (including the origins of rural architecture, cultural heritage, and regional identity). The theoretical principles covered in the lectures are applied in the design projects that form part of the coursework, with the aim of creating modern architecture in rural areas consistent with the principles of sustainable development.

# Course topics

### I. Lectures:

- Farmstead development spatial layout and design principles. Buildings in farmstead, regulations on the location of buildings and facilities, technological and driving lanes.
- Specialized farms livestock buildings, outbuildings.
- Cultural heritage of rural areas. The identity of the place. Use of cultural heritage in rural regeneration projects.
- Rural settlement development history and regional diversity. Development of farming methods across the history and their influence on the village layout. Influence of natural and geographical conditions and socio-economic factors on the development of settlement. Types of villages, field layouts, colonization actions
- Spatial planning in rural areas. Instruments for shaping and protecting the rural landscape.
- Social and economic transformation of rural areas. Contemporary problems, risks and chances for development, new functions in rural areas.

### II. Project:

Design topics carried out within the course include planning of rural areas in the field of designing settlement complexes or individual objects of a residential, production, service and commercial purpose. The topics concern especially less developed rural areas, requiring deliberate actions in the field of development, but also protection of the natural environment and existing antropogenic values.

The emphasis is put especially on methods of rural designing – vernacularism:

- importance of tradition

- adapting design solutions to bioclimatic conditions
- use of pro-ecological solutions
- landscape, cultural, antropogenic and natural context.

Students prepare and present individual solutions of each problem in the rural environment: multifunctional farm located in the given rural settlement of various scales.

# **Teaching methods**

- I. Lectures:
- 1. Lecture with multimedia presentation
- 2. eKursy (eLearning Moodle) online system supporting the process of teaching and distant learning
- 1. Design studio. A project elaborated individually or in a group, requiring joint decisions, division of tasks, individual and team analysis and case studies.
- 2. Discussion.
- 3. eKursy (eLearning Moodle) online system supporting the process of teaching and distant learning

# **Bibliography**

### Basic:

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- 2. Drożdż-Szczybura M. 2011. O wyrazie architektonicznym budynków inwentarskich. Od kraalu do farmy pionowej, Politechnika Krakowska, Kraków.
- 3. Górka A., 2011. Zagroda. Zagadnienia planowania i projektowania ruralistycznego, Wydawnictwo Politechniki Gdańskiej, Gdańsk, 978-83-7348-368-2.
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- 11. Wieczorkiewicz W. 1988. Budynek mieszkalny na wsi, Arkady, Warszawa, 82-213-3379-6.
- 12. E-skrypt dla przedmiotu "Projektowanie architektury wiejskiej".

### Additional:

- 1. Chmielewski W. J. 2017. Regionalizm współczesnej architektury reakcją na procesy globalizacji, Politechnika Krakowska, Kraków.
- 2. Czerwiński T., 2006. Budownictwo ludowe w Polsce. Ocalić od zapomnienia. Sport i turystyka. Muza SA, Warszawa, 83-7495-043-9.
- 3. Kowicki M. Patologie/wyzwania architektoniczno-planistyczne we wsi małopolskiej. Studium na tle tendencji krajowych i europejskich 2010, Wydawnictwo Politechniki Krakowskiej, Kraków.
- 4. Lenard J. Z., Tłoczek I., 1975. Budynki w zagrodzie, Arkady, Warszawa.
- 5. Ruszczyk G., 2009. Architektura drewniana w Polsce. Sport i turystyka. Muza SA, Warszawa, 878-83-7495-623-9.
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- 7. Wiśniewska M., 1984. Planowanie osiedli wiejskich, Arkady, Warszawa, 83-213-3230-7.
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- 9. Wojciechowski L., 1989. Nowoczesna zagroda, Państwowe Wydawnictwo Rolnicze i Leśne, Warszawa, 83-09-01284-5

	Hours	ECTS
Total workload	100	4,00
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)	40	1,50