



Semester	
number:	
II .	

Degree of study:

Subject:

ZEROWASTE ARCHITECTURE

Number of **ECTS** credits:

Academic year: 2022/2023

Department leading the course **DEPARTMENT OF TECHNICAL BASICS** OF ARCHITECTURAL DESIGN

Teacher:

mgr inż. arch. Bogumiła Kapica

A brief description of the problems of the course:

The issues of the classes include design in the spirit of "zerowaste", i.e. maximum use of existing tissue and the use of secondary building materials. In the face of climate change, construction should face the enormity of waste generated by this sector. Minimizing the production of a new substance and maximizing the use of the existing substance in combination with high aesthetic values is a considerable architectural challenge.

The classes include presentations of secondary materials and logistics solutions, discussions on the challenges of reconstruction according to zerowastephilosophy, an exercise consisting in the analysis of the selected implementation of zerowaste architecture.

Purpose of the subject:

- getting acquainted with the issues of zerowaste: lifestyle (clothing, nutrition, shopping, renovation)
- presentation of secondary building materials and their features
- familiarization with examples of aesthetic use of secondary materials realizations
- applicable law related to the use and legalization of secondary materials
- presentation of zerowaste architecture in Poland and Europe (material passports, mapping of building depots)
- mastering the ability to analyze design possibilities in the spirit of zerowaste
- the exercise: research, analysis and presentation of an aesthetic example of the implementation of zerowaste architecture
- developing ecological, aesthetic sensitivity and creativity in shaping the contemporary architectural form in the zerowaste spirit

Course contents / schedule of classes:

- Discussion of the topic of classes and organizational issues. Lecture na topic of zero-life lifestyle.
- Secondary building materials presentation, features, examples of application.
- Zerowaste architecture and policy in Europe a short historical outline, presentation of legislative and logistical solutions. Material passports, mapping of construction depots.
- 4. Analysis of the situation in Poland, presentation of the construction process in the spirit of zerowaste from concept to implementation, taking into account current legal regulations, design realities, inter-industry and executive coordination.
- Proposals for systemic solutions linking the demolition, design and construction sectors. Explaining the issues of two design tasks. Ex. No.1. Preparation of 5 issues - challenges for discussion on zerowaste architecture Ex. No.2. Analysis and presentation of the selected zerowaste building - work in pairs.
- Discussion on the challenges facing zerowaste architecture. Consultation of presentation topics.
- Presentations in pairs exercise No. 2.