

MODERNIZATION OF BUILT STRUCTURES

General information	
<i>Subject</i>	Modernization of Built Structures
<i>Faculty</i>	Faculty of Civil Engineering, Architecture and Environmental Engineering
<i>Course of study</i>	Architecture
<i>Profile</i>	General academic
<i>Type of study</i>	I level with the degree of Eng. Arch.
<i>Starting semester</i>	Summer semester

Information about the subject	
<i>Semester</i>	6
<i>Number of ECTS points</i>	5
<i>Subject type</i>	obligatory
<i>Language of instruction</i>	English
<i>Syllabus prepared by</i>	Dr hab. inż. Wojciech Eckert, prof. UZ

Type of class					
<i>Course type</i>	<i>Number of classes per semester (full time studies)</i>	<i>Number of classes per week (full time studies)</i>	<i>Number of classes per semester (part time studies)</i>	<i>Number of classes per week (part time studies)</i>	<i>Credit type</i>
Lecture	15	1	-	-	Credit with a grade
Project	30	2	-	-	Credit with a grade

Subject objective
After completing the course, the student has an organized knowledge of the spatial and structural properties of brick buildings in a historical period, conservation doctrines, architectural styles, and European and Polish architectural history.

Initial requirements
Formal: History of architecture. General construction. Building materials.

Subject scope
<p>Lecture: Spatial and structural characteristics of masonry buildings in a historical period. Doctrines and theories for protection of historical buildings. Trends and directions in conservation design. Important events and technical achievements in construction in the modern period. Important events and dates in the history of masonry structures in Poland.</p> <p>Project: Renovation of historical buildings and conceptual design for adaptation of a disused building for a modern utility purpose in terms of functional, constructional, material and technological solutions.</p>

Educational methods
<p>Explanation methods: Lecture – conventional, problem-related, with a programme text.</p> <p>Research methods: Project – case study, practical exercises – methods for observation, measurement in situ</p>

Education results and verification methods			
<i>Description</i>	<i>Symbol</i>	<i>Verification method</i>	<i>Type of class</i>
The student has an organized knowledge of the spatial and structural characteristics of masonry buildings in a historical period, conservation doctrines, architectural styles, and European and Polish architectural history.	K_W02 K_W04 K_W07	– test with points	lecture
The student can prepare a project of building renovation and adaptation for modern utility purposes in terms of functional, structural, material and technological solutions	K_U11 K_U12	– preparation of the projects	project
The student thinks and acts in a way that enables adaptation and modernization of buildings and built-up areas for new functions. The student can cooperate with relevant services and institutions.	K_K02 K_K03	– observation and evaluation of participation in the classes – observation and evaluation of the student's practical skills	lecture project

Requirements to obtain a credit
Lecture: A credit based on a test with points.
Project: The condition for a credit is a positive grade for all project exercises (2 projects) and for a written test with points.

Student's work	
<i>Student's work</i>	<i>Full time study (h)</i>
Interaction with the teacher (classes; consultations; exam, etc.)	75
Student's individual work (preparation for the classes, test exam; literature research preparation of: written paper, project, presentation, report, speech; etc.)	50
<i>Total</i>	125
<i>ECTS points</i>	<i>Full time study</i>
Work with a teacher	3
Work without a teacher	2
<i>Total</i>	5

Basic literature
1. Borusiewicz W.: Konserwacja zabytków budownictwa murowanego. Arkady, Warszawa 1985.
2. Charytonow E.: Historia architektury. PWN, Warszawa 1980.
3. Kadłuczka A.: Konserwacja zabytków i architektoniczne projektowanie konserwatorskie Wydawnictwo Politechniki Krakowskiej, Kraków 1999.
4. Małachowicz E.: Konserwacja i rewitalizacja architektury w zespołach i krajobrazie. Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1994.
5. Materiały konferencyjne VII Forum Konserwatorów „Konserwacja Architektury ceglanej i kamiennego detalu architektonicznego”, Toruń 2004.

Complementary literature
1. Borusiewicz W.: Budownictwo murowane w Polsce. PWN, Warszawa 1985.
2. Zin W. praca zbiorowa: Zabytki urbanistyki i architektury w Polsce . Odbudowa i konserwacja.

Arkady, Warszawa 1986.

3. Inżynieryjne Problemy Odnowy Staromiejskich Zespołów Zabytkowych, Konferencja Naukowo-Techniczna, Kraków, Politechnika Krakowska.

4. Czasopismo Renowacje.

Notes