

### POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

### **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

History of Architecture 1 [S1Arch1>HA1]

Course

Field of study Year/Semester

Architecture 1/1

Area of study (specialization) Profile of study

general academic

Level of study Course offered in

first-cycle Polish

Form of study Requirements full-time compulsory

**Number of hours** 

Lecture Laboratory classes Other 0

30

**Tutorials** Projects/seminars

0

Number of credit points

3,00

Coordinators Lecturers

### **Prerequisites**

Knowledge: - basic knowledge of general history - basic knowledge necessary to understand the social, economic, legal, and non-technical conditions of historical processes - the student has knowledge in the fields of art, history, geography, mathematics, and physics useful for understanding simple relationships occurring in buildings over the centuries in various climatic conditions - the student knows basic methods and techniques (including architectural drawing) necessary for conducting lectures and preparing semester papers Skills: - utilizing available sources of information, including electronic sources - the student demonstrates the ability to draw correct conclusions based on data from various sources Social competencies: - understanding the necessity of expanding one's competencies, readiness to cooperate within a team

### Course objective

1. It makes students aware of the continuity of the development of architectural tradition in terms of technique, utility, and art from antiquity to the Romanesque period. 2. It defines the relationships between technical possibilities and the level of satisfaction of material and spiritual needs. 3. The subject draws attention to the genesis of local architectural specificity of the same period in different countries and regions during antiquity, early Christianity, and the Romanesque period. 4. It introduces the most important works and creators of architecture during the discussed periods from antiquity to the Romanesque period. 5. It teaches the immutable principles of creative thinking and arriving at new functional, technical, and formal solutions. 6. It enables the understanding of basic issues related to urban and architectural composition. 7. It makes students aware of the differences in human and monumental scale. 8. It involves working in small groups, developing interpersonal skills and finding one's place. 9. It provides a field for practicing drawing skills in architectural presentation. 10. It allows for a comparative assessment of graphic presentation methods of one's own work and that of colleagues.

## Course-related learning outcomes

#### Knowledge:

B.W1. theory of architecture and urban planning useful for formulating and solving simple tasks in the field of architectural and urban design as well as spatial planning;

B.W2. the history of architecture and urban planning, contemporary architecture, heritage protection to the extent necessary for architectural, urban and planning creativity;

### Skills:

B.U1. integrate knowledge from various areas of science, including history, history of architecture, history of art and protection of cultural goods in solving engineering tasks;

B.U2. recognize the importance of non-technical aspects and effects of an architect"s design activity, including its impact on the cultural and natural environment;

### Social competences:

B.S1. formulating opinions on the achievements of architecture and town planning, their determinants and other aspects of the architect"s activity, as well as providing information and opinions; B.S2. reliable self-assessment, formulating constructive criticism regarding architectural and urban planning activities.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

On the successful completion of this course, students should be able to:

Demonstrate a basic understanding of the key concepts of architectural history and theory.

Be able to show they can intelligently and critically apply these concepts to new situations arising from contemporary architectural practice.

Written on-line exam, PUT Moodle Platform

An one-choice test. Test will be accessible on eKursy, after loging on into individual account, on the day and at an hour appointed in the system. Test consists of 20 questions. There are 4 possible answers shown by each question. Only one of them is correct. For each correctly answered question there are 5 points to get. Scoring:

- 0 49,99 pkt. = ndst (2,0)
- $\bullet$  50 59,99 pkt. = dst (3,0)
- $\bullet$  60 69,99 pkt. = dst+ (3.5)
- $\bullet$  70 79,99 pkt. = db (4,0)
- 80 89,99 pkt. = db + (4,5)
- 90 100 pkt. = bdb (5,0)

## Programme content

1. The architecture of ancient Egypt: periods of development of the state and the specifics of economy; culture connected with the Nile. Religion. Purpose, functional structure and forming the Egyptian temple. Groups of temple with different purposes (Karnak-Luxor) and spatial solution: the terrace temple of Mentuhetep II and III and Queen Hatshepsut. Pyramids and rock-hewn tombs. Groups of sepulchral: function, spatial and structure solutions. The necropolis of Giza. Technique and technology

- of building works in Egypt: irrigation and big construcion; material, tools, measurement, transportation. Residence. House. Relations beetwen works of art and architecture: sculpture, bas relief, relief, polichrome. The importance of available iconography.
- 2. Mesopotamia: displacement of cultures: The Sumerians, Babylon, Assyria, Persia changes in two rivers area, economy, irrigation system, creation of fortified towns. Babylon: ziggurat, temple and house. Hanging Gardens of Babylon. Palaces in Babylon, Assyria and Persia.
- 3.Minoan and Mycenaean architecture. Prehistoric period of greek culture: Crete palace of Knossos, Mycenae and Tiryns citadels. Lion Gate, megarons, Cyclops walls. Tomb of Agamemnon (Treasury of Atreus), false vault. Troy megaron, town.
- 4.Ancient Greece: natural conditions. Orders of Classical Greek. Development of temple forms: megaron, templum In antis, prostylom, amfiprostylos, peripteros, pseudoperpteros, dipteros, tolos and monopter. Location and function. Construction of a Greek temple. Doric order. Optical corrections.
- monopter. Location and function. Construction of a Greek temple. Doric order. Optical corrections. 5. Ancient Greece: technique of performing shank elements, entablature, detail. Dorian temples: Parthenon of Athens combine orders, Paestum Temples of Poseidon and "Basilica". The role of lighting the interior of the temple and methods for indoor lighting Greek temples. Colours of temple. Ionic order: genesis and form. Ionic temples: Temple of Nike Apteros, Erechtheion, Temple of Artemis at Ephesus, Temple of Athena Polias in Priene, Temple of Apollo at Didyma, Temple of Filiptejon in Olimpia, Temple of Tolos at Epidauros.
- 6. Ancient Greece, Corinthian order. Corinthian temples: Temple of Zeus, Olympia and Lysicrates monument in Athens. Greek house. Stoa, bouleuterion, theater, gimnasion, stadium, town walls. Akropolis of Athens in the age of Perikles fifth century BC. Mausoleum at Halicaranassus. Altar of Zeus in Pergamon. Circles cult: Olympia and Delphi.
- 7.The Etruscans: urban planning, temple and sculpture. Roman culture and architecture the result of penetration of Etruscan and Greek models. Roman temple: location and decor. The expansion of the empire and its cosequences. Roman orders new adaptation of the Greek orders: comparative summary of characteristics of the individual orders. The most important temples in Rome: Temple of Fortuna Virilis, Tample of Mars Ultor, Temple of Concord, Temple of Venus and Rome, Pantheon, Temple of Vesta (on the Forum Romanum and Forum Zoarium), Maison Carree, Nimes.
- 8.Ancient Rome. Roman orders. The construction of arch with imposts, leaning, cross vault, cloister vault, segmental sphere, dome of variable thickness. Forum Romanum. Secular buildings of Rome: basilicas: Basilica Julia and Basilica of Maxentius, Theatre of Marcellus graduation orders. Imperial fora. Amphitheater: Coloseum, Baths of Diocletian, Baths of Caracalla, circus: Circus of Maximus and Maxentius, triumphal arches: The arch of Titus, Arch of Constantine, Arch of Septimus Severus. Column of Trajan. Roman house: insula and peristyle house. Engineering buildings: roads, bridges, aqueducts, The Cloaca Maxima, the wall of Hadrian.
- 9.Disintegration of Roman empire into west and east. Ravenna, Byzantium (Constantinopole) and Early Christian architecture. Inspirations. Axial and central systems. Tradition of beam-framed floor and dome. Amphorae structure. Cupolas on squinches and sails. Early Christian basilica with transept and without it (function, construction, form: decor problem). Prototype: Roman basilica. Confession. Ravenna: baptisteries Arian and Orthodox, tombs: Gaul, Placidia, Theodoric (Santa Maria Della Rotunda).
- 10.Byzantium. San Vitale Church in Ravenna inner space, construction, external form. Byzantine mosaic and Roman mosaic. Byzantine central systems: Hagia Sophia and Temple of Sergius and Bacchus in Constantinopole, San Stefano Rotundo and Santa Constanza in Rome. Multi-dome structures: St. Apostles in Constantinopole and St. John in Ephesus. Orthodox architecture.
- 11. Orthodox and Islam architecture. The spatial arrangement of the mosque; Mosque of Mecca, Mosque of Cordoba. Examples of Orthodox Church architecture. St. Sophia Cathedral in Kiev, St. Sophia Cathedral in Novograd Great.
- 12. Carolingian and Ottonian architecture. Palace chapel at Aachen, church in Centulia (currently Saint-Riquier), Saint Germain church in Auxerre, abbey church of Fulda, abbey church in St. Gallen, St. Michael church in Hildesheim. The development of early medieval monasticism abbey church St. Galen, abbey church Cluny.
- 13. Development of Romanesque structure. Romanesque schools in France: Lower Rhine, Upper Rhine (Ile-de-France), Normandy, Burgundy, Auvergne, Poitou, Aquitaine, Provence and Languedoc, south and south-western France.
- 14. The beginnings of the Polish state and the Romanesque architecture in Poland: the beginnings of the settlement in Poland, the settlement in Biskupin, fortified castles and boroughs. Objects: Ostrów Lednicki, Przemyśl, Giecz, Wawel Hill, cathedral in Poznań, Gniezno and Wawel cathedral, Trzemeszno, Inowłódź, Mogilno, Tum near Łęczyca, Pradocin, Cieszyn, Czerwińsk, Kruszwica, Strzelno and St. Andrew Church in Krakow.

### **Course topics**

Lectures on the history of ancient and early medieval architecture.

# **Teaching methods**

- 1. Course lecture with a multimedia presentation.
- 2. The exercise method based on the use of various sources of knowledge and a seminar; graphical interpretation of the discussed issues (szkicownik).
- 3. eLearning Moodle (a system supporting the educational process and distance learning).

### **Bibliography**

Basic

Fletcher B., Sir Banister Fletcher"s A History of Architecture, New York 2002

Fletcher M., Polley R., Architectural Styles: A Visual Guide, Princeton University Press 2020

Harbison R., Travels in the History of Architecture, Reaktion Books, 2011.

Roth L., M., Understanding architecture. Its Elements, History and Meaning, Boulder 2006

Moffet M., Fazio M., Wodehouse L., A World History of Architecture, London 2003

Copplestone T., World architecture: an illustrated history London 1963

Additional

Marconi C., (Editor). The Oxford Handbook of Greek and Roman Art and Architecture Oxford University Press;2018

### Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	45	2,00