

1. Elective seminar: Smart City - Innovation in Architecture

Lecturer: Magdalena Grochulska-Salak PhD Arch, Anna Nowak PhD Arch, Anna Tofiluk PhD Arch

Course objective:

The aim of the course is to familiarise students with the latest trends in design and in particular with innovative functional-spatial, structural and material solutions.

The aim of the student work will be to design, model a prototype solution for an individually formulated design problem.

Course description:

The premise of the course is the creative design and prototyping of innovative technological, structural and architectural detailing and innovative ideas for use in the 'architecture of the future'. New technologies in parametric design and the application of artificial intelligence in innovative designs will also be discussed. Recognition of the complexity of decision-making according to the Design Thinking method for the development of innovative solutions in architectural design.

Students will develop a virtual model - a prototype of the problem issue under analysis in relation to contemporary social needs, design trends and modern technologies and materials in relation to pro-environmental assumptions and new building locations and uses. An ideological concept and implementation tasks, modelling and prototyping will be prepared.

Topics to be dealt with by the students include: analysis of design and realisation conditions and implementation conditions, user profile, definition of criteria for valuing solutions in design work, creativity and innovation in the creation of innovative proposals for design solutions compliant with the principles of circular economy, and issues of climate change on earth and space exploration.

The course will be prepared and conducted on the basis of innovative educational methods.

Course topics:

- Discussion of innovation in architecture (functional-spatial, structural, material)
- Introduction to the teaching methodology (Design Thinking)
- Development of design assumptions, determination of the individual analytical and design issue;
- Introductory presentations I on creative design for designing a solution "ahead of today's reality"
- Profiling the user/consumer and functional/utility assumptions;
- Defining the design problem and identification in space, construction, materials;
- Idea development in hybrid solutions;
- Shaping of models and prototypes;
- Evaluation and testing of models and prototype conceptual solutions for architectural innovation;
- Presentations and multi-criteria evaluation of the credit work - prototype/model in urban space;
- Feedback summary and discussion.

Teaching methods, forms of teaching:

Classes based on innovative learning methods using Design Thinking.

Course form: presentations, discussion, modelling and prototyping

Required prerequisite knowledge (credits for other subjects)

Forms of completing the course:

- presentation I: the student presents the analysed design problem and innovation issue
- conceptual work:
- presentation II: the student presents the results of conceptual work and a model (electronic version and printout or spatial prototype, boards, presentation, animation/film)
- Class participation, teamwork activity, documentation of the design process, elaboration and presentation of the thesis (charts, presentation, animation/film)

2. Elective lecture: Signs and symbols as elements in the landscape in contemporary architecture.

Lecturer: Prof. Arch. Anna Maria Wierzbicka, Dr. Arch. Maria Arno, Dr. Kinga Zinowiec-Cieplik

Lecture aimed at students of architectural studies who want to delve into the topic of the significance and symbolism of signs and symbols in the landscape in contemporary architecture. During the lecture, different types of signs and symbols, their functions, and the way they influence the perception and meaning of architecture will be discussed. The instructors will also present practical examples that illustrate the application of these elements in real projects.

3. Elective lecture: Narration and its role in modern architectural design - trends and inspirations.

Lecturer: Prof. Arch. Anna Maria Wierzbicka, Dr. Arch. Maria Arno, Dr. Kinga Zinowiec-Cieplik

Lecture aimed at English-speaking engineering students who are interested in modern architectural design. The lecture will cover various aspects of narration in architecture, including its role in creating cohesive and meaningful projects. The instructors will also present the latest trends and inspirations in the field of architectural design that utilize narration as a tool for creating unique and interesting spaces.

4. Elective seminar: Talking architecture- Pathfinding, discourse and criticism in 21 century architecture

Lecturer: Paweł Grodzicki

The Prologue

The title of Peter Zumthor's 1998 book *Thinking Architecture* implies there is a particular mode of thinking - unique to architecture. It involves specific sensitivity, mindset and language. Architects, consciously or not, constantly and tirelessly adopt, transmit and transform those thought and action patterns in their theory (some have one...) and practice.

But... there is no such a thing as a single, true, undisputable, arcane way of making (good) architecture. There are plenty... More likely there is a multiverse of individual methods, strategies, patterns of (architectural) behavior. And they are all different, and most of them are, in their own way, are good, true, and worthy. Some are not: intellectually poor, insignificant or even devastating. And distinguishing one from the other is never obvious...

The Seminar

During the classes we will work out: recognizing those various patterns and strategies, understanding their meaning, subjecting them to critical analysis, positioning within the overall landscape of architectural universon and finally, referring those findings to our own architectural awareness and identity.

The Purpose

Our objective will be to become more aware, more sensitive and sensible, smart, more progressive, ... in short - better, wiser professionals, capable of bringing more good to the world, society, knowledge.

The Tool

To achieve the goal we will use simplest tools available: we will pick on real world cases (buildings, architects, topics, readings - of your choice) and we will be digging in, chewing, digesting and foremost: talking architecture (forgive combining chewing and talking...). And, as in good psychodrama - we'll taste a bit of role-taking game - by actually stepping into our character's shoes, at least in creative sense. Evidence based critical discourse will be our main focus and field of activity.

The Rules

Rule 1: only architecture, architects, topics, trends of architecture of today will be let in. (... but sometimes, if necessary, we'll also reach out to the past - if today's architecture points at / originates from it (reverse history)).

Rule 2: absolute freedom of choice, speech, reasoning, as long as it refers to architecture and supports The Purpose.