



Complex Design 2. Task Description MSc Academic Course

1. Design Task Outline

- **Update** the building utilities, services and energy performance characteristics of your building as well as the corresponding space- and area demand forecasts submitted for "**Complex Design 1**" program.
- The **scope** of the "**Complex Design 2**" design program is to develop **construction documentation sets** bases on the submitted and approved "Complex Design 1" program; considering the full or partial development of the heating, ventilation, air-conditioning, plumbing or artificial lighting systems.

To obtain a signature, the implementation of the above points into the draft plan is mandatory! The deadline for signing draft plans is the same as the acquisition of the design and planning departments outline plan deadline. If the draft plans are not signed before deadline, it may result in the denial of the semester's acceptance.

2. List of Deliverables

Indicate on the architectural plans the required wall- slab- beam and roof break-through locations, vertical shafts that are required for the various building systems and services. Choose one of the following design tasks:

- **Central Heating System:** central heating pipe network representation in 1:50 scale on the floor plan, specifying the dimensional data (room heat loss, radiators, wall, ceiling or underfloor heating, heat is dissipated and the type of pipe material), representation of the heating system in a simplified diagram.
- **Ventilation System:** ventilation system and ventilation machine room, duct networks, supply-exhaust systems representation in 1:50 scale on floor plan and sections, indicating the dimensional data (supply and exhaust air, ventilation number of spaces, supply and exhaust diffusers size and type of connections to the building; duct system size).
- **Water Supply and Sanitation:** water supply and sewerage pipeline network presentation in 1:50 scale on the floor plan, the sized data, the fittings and indication of fixtures and necessary safety devices (cleaning profiles, ventilating ducts, air intake) depiction of utilities site plan around the building, cleaning indication of connection to the utility channel.
- **Artificial Lighting:** select manufacturer-specific luminaires corresponding the function and geometry of the interior and define adequate light sources for the corresponding visual tasks. Create a floor plan and section layout of the luminaries in 1:50 scale. Suggest daylighting - artificial lighting schemes for the interior spaces.

The final signature of the acquisition is conditional on implementation of this program points!