



## BSc Diploma I Task Description

### 1. Design Task Outline

#### 1.1. Preparatory study

- **Demands:** Analyze the building program based on its use and comfort requirements of the occupants: maximum number of occupied areas, the desired indoor temperature and humidity, air quality requirements, operating times, schedules, etc. The above information consists of recording the values from the analysis of mentioned fields, and the other part covers the analysis of building operating "rhythm", or if the program of the building has different parts from the rest.
- **Facilities:** Location of the planning endowments, restrictions and opportunity analysis. Analyze the following aspects: the areas orientation, shaded buildings (adjacent buildings, vegetation), slope conditions and geological conditions, risk of flooding, available utility connections.
- **Renewable energy:** 25% of total energy use of the building must come from renewable energy sources. Make a preliminary analysis of applied technologies: make a list of the technologies available today, then knowing the location and design programs analyze in 1-2 sentences the basis of its application. The above technologies are listed in three types: simple to apply, difficulties can occur, and not applicable. Based on the analysis choose at least one or up to three technologies. Describe the requirements of the selected application technology, which are mandatory to be taken into account during the architectural design!

***In order 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.***

#### *Drawing task*

- Identify the building utilities and determine the energy potential, preparation of utility layout of the property on at least 1:500 scale. On a conceptual design plan level designate the building's mechanical and electrical spaces.
- Contain a draft plan of the energy operations of the building on a power supply concept level. The conceptual plan should be prepared for typical operation intervals (see 1.1 task demands)!

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