

**COURSE TITLE:**  
**BUILDING STRUCTURES**

**Institute/Division:** A4 Institute of Construction Design, Division of Building Techniques

**Erasmus subject code:** 02.9

**Number of contact hours:** 30

**Course duration:** 1 semester (available in Fall and Spring Semester)

**ECTS credits:** 2 (minimum)

**Course description:** The main goal of this course is to help students during their design work and connected with proper solutions combining together building function and structure. Student is obliged to select one topic among three main groups of tasks or she/he has right to propose another individual topic of the research, which is strictly within the basic teaching problems of this course. Students can work individually or in groups of maximum 3 persons. The first of the main topics refers to the comprehensive research of structural system of a chosen building including general aspects of stability, problems of structural design of component parts together with issues of assembly and maintenance of the whole building caused by application of the applied support system. The second one is connected with structural design of selected members of the bearing building structure together with the basic static calculations, structural drawings etc. The third kind of the main topics is to present the general and basic problems of various forms and types of structural systems, which may be applied as the support structures for the same type of objects, of the equal geometrical sizes and the same functional purposes. For this topic students have to prepare suitable static calculations and appropriate drawings. For all types of the main topics the final presentation done in Power Point is obligatory.

**Literature:** Basic literature on technical solutions in form of technical manuals, building codes, national and international journals in appropriate fields of engineering and architectonic issues.

**Course type:** Individual design work under supervision and tutorial

**Assessment method:** Evaluation of the final submission

**Prerequisites:** Architectural Studio

**Primary target group:** 3<sup>rd</sup> and 4<sup>th</sup> year students in Architecture

**Lecturer:** Janusz Rębielak, Prof. DSc PhD Arch.

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**Deadline for application:** beginning of the Fall or Spring Semester (according to the schedule)