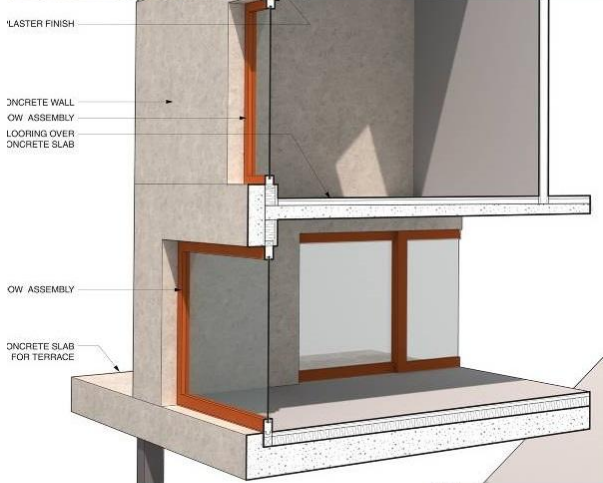
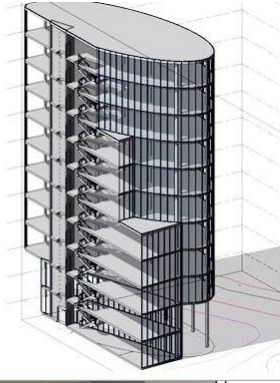


Sem. 3

first-cycle
studies

**CAD. Integrated
Architectural Design**

ECTS credits:

2.0

Academic year:

2026 / 2027

Department of Visual Arts

Subject supervisor:

Dariusz Cyparski M Sc Arch

Brief description of the subject:

The lesson plan introduces students to the typical design workflow for creating a full BIM model and related architectural documentation. The teaching topics include learning the functions and advanced techniques for creating databases of BIM buildings, working with parametric objects and plug-ins, and the automatic generation of architectural elements based on study models (Form, Mass Study). Students will also learn tools for generating organic facades, multi-level parametric objects, elevations, sections, and perspectives. Additionally, during classes, students will learn techniques for presenting architectural designs and publishing them in digital formats.

Purpose of the subject:

To provide a detailed understanding of optimizing the design process using parametric BIM (Building Information Modeling) in the Autodesk Revit Architecture program. Practical design exercises will familiarize students with methods of integrating parametric design and exchanging data with other CAD/BIM programs, as well as modifying parametric objects and generating automatic 2D and 3D architectural documentation.

Sample tasks:

1. Link a CAD files to REVIT project, adjust the scale, maintain connection between the files and the model,
2. Set up interactive construction grids, and generate multistory objects linked to them.
3. Draw, build, and modify 3D forms using AutoCAD Reference Lines,
4. Join multiple forms into One Solid Geometry (Mass) and generate Mass Floors and Roofs
5. Generate Curtain Grid System from Mass Instances.