

Exemplary task

As part of the course, the students are required to design a construction project using freely selectable materials. All required design steps for the construction of the project are to be implemented.

In addition to the required textual elaboration and the design drawings, a model is also to be built. If desired, the production of the model can also be done with the 3d printers provided at the institute. The requirement for this is a detailed examination of the various possibilities and restrictions of additive manufacturing. The self-selected detail of a structural joint can either be implemented as a drawing or as a model.

General conditions for the task

1. The task can be carried out alone or in a group of up to 5 students from different study areas.
2. Proposals for the project are provided by the participating students or can be requested at the Institute KGBauko.
3. Possible construction projects are e.g. roofings, viewing platforms, sculptural towers, landmarks, pavilions or footbridges. Built examples are shown enclosed.

Subtasks

1. Textual elaboration
 - Presentation of the design (design idea, development steps)
 - Explanation of the structure, materiality and jointing (incl. justification)
 - Maximum 2 DIN A4 pages
2. Drawings
 - Site plan on a scale of 1:500
 - Floor plan on a scale of 1:100 / 1:200
 - Longitudinal section on a scale of 1:100 / 1:200
 - Cross section on a scale of 1:100 / 1:200
 - At least 2 suitable elevations on a scale of 1:100 / 1:200
 - Detail of a structural joint on a scale of 1:5
3. Architectural model
 - Model on a scale of 1:200 / 1:500
 - Alternatively, an exemplary visualisation or 1:1 prototype demonstrator (ideally for group work)

Individual adaptation of scales possible after consultation.

Project example: Roofing of a bus station



Project example: Viewing platform

