



1st Workshop Practice – Roof structure construction

The task

All students have to work in 2 people groups. First as much different roof shapes should be designed as possible. Use all learned specialties from the workshop exercises (verge walls, gable walls, fire walls, pitched and half pitched roof shapes, canopies, etc.)

All group have to choose one shape to work on in details (approved by the lecturers). Two different cross sections have to be designed – one with a traditional roof structure and one with a modern one which is applicable for an attic extension. All structural elements should be named with its typical dimensions.

One of the designed roof structures (approved by the lecturers) should be drawn in S=1:100 scale on the given working sheet (one roof structure layout plan, on cross and one longitudinal section). All problematic details (balconies, canopies, chimneys, etc.) should be solved. Detail drawings in S=1:10 or S=1:5 should be given from with the eaves-, the ridge- and the waist purlins (should there be any) with the coverings as well.

The following parts should be prepared and presented for the lecturers until the end of the workshop practice:

- at least 4 different **roof shapes**
- typical **cross sections** – 1 with a traditional roof structure and 1 with an attic extension S=1:100
- one **layout** and at least two **sections** (cross and longitudinal) from one structure S=1:100 on the given worksheet
- at least 3 **details** with the joists and the coverings (eaves, ridge, waist) S=1:10 or S=1:5

Submitting the tasks listed above is essential. Not submitting the tasks above is equal with no attendance on the workshop exercise (no signature can be received).

Students can use any aid (books, notes, electrical devices, internet, etc.). Students must bring their own tracing paper, drawing pens and pencils and rulers.





Submission

Students can prepare the following tasks on A4 or A3 white papers for next week's lecture. Work of sufficient professional quality can be rewarded with 10 extra points for each student for the semester. All teams shall present both names on all papers.

The following tasks shall be prepared:

As a team:

- at least 6 different **roof shapes**
- typical **cross sections** – 1 with a traditional roof structure and 1 with an attic extension $S=1:100$
- one **layout** and at least two **sections** (cross and longitudinal) for both structures $S=1:100$
- at least 3-3 **details** with the joists and the coverings (eaves, ridge, waist) $S=1:10$ or $S=1:5$ for both structures with different coverings

Alone:

- at least 4 different **roof shapes**
- typical **cross sections** – 1 with a traditional roof structure and 1 with an attic extension $S=1:100$
- one **layout** and at least two **sections** (cross and longitudinal) for the modern structure with attic extension $S=1:100$
- at least 3-3 **details** with the joists and the coverings (eaves, ridge, waist) $S=1:10$ or $S=1:5$ for the modern structure with attic extension

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