



Study Board of Energy

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Rules of Group Formation

Background

Group formation processes are an essential part of the project-based learning approach at AAU, and these processes greatly influence the students' wellbeing and learning in the project work. Usually, the group formations are carried out without problems, but for some students the group formation process can be experienced as problematic, chaotic, and sometimes unpleasant and associated with social exclusion.

Several different stakeholders with varying levels of interest are involved in the group formation processes. The most important stakeholders are the students, the semester coordinators (who are overall responsible for the processes) and the university (academically/pedagogically/didactically).

These rules establish some tools to assist with the group formation process, including different possibilities for the course of the process, and they address the problems that can arise during the group formation process, e.g. students who are not assigned to a group and subsequently the possibility of splitting and reorganising groups.

Overall Principles

Overall, group formation processes can vary from the entirely administrative formation where the university takes full responsibility (for example P0) to processes that are fully managed by students (for example master's thesis). Despite the different attitudes to and wishes for group formations, several conditions can be agreed upon:

- As a starting point, it is a good principle that no group is closed until all students have been assigned to a group.
- Especially at the first semesters of the study programmes, conditions could call for more controlled group formation processes (for instance administratively formed groups).
- In semesters with international students, it is desirable to mix the groups, so different nationalities are represented.
- Generally, students learn different things by working in different groups, and for this reason, this must be attempted.
- Project supervision is not just limited to academic guidance, but also pedagogical guidance. It is therefore important that the supervisors are professionally prepared to support and challenge the students in both the group formation process and the collaboration process.
- Coordination between semester coordinators should be established to enable an exchange of experiences from previous semesters in terms of group formation and the group work in general (without stigmatising any individual students).

- The group formation process should as a minimum be evaluated in connection with the semester evaluations.
- It may be desirable in certain semesters to change the normal group formation processes controlled by students to ensure that students are not always working with the same group. This can for instance be done through different semester structures, other working methods than the 'AAU project', varying group sizes or new group formation processes.

Choice of Project

Prior to the beginning of the semester, the semester coordinator has collected project proposals from supervisors and possibly students. In collaboration with the supervisors, the semester coordinator has ensured that the project proposals relate to the theme of the semester and that the proposals are realistic in terms of learning objectives, time frame, equipment, laboratories, etc.

The project proposals must be made public no later than **15 August** for the autumn semester and **20 January** for the spring semester. In certain semesters, the project can be more fixed due to specific laboratory work or the like. In these instances, a description of the project must, however, still be available at the beginning of the semester.

The semester coordinator invites project proposers to the semester commencement meeting to present their project proposals and answer detailed questions regarding the project content. If a project proposer is unable to attend, he or she sends a presentation video to the semester coordinator, who will show the video at the semester commencement meeting. An intended co-supervisor can present the project proposal if the project proposer cannot attend the commencement meeting.

The study secretary calls the students and the semester coordinator of the respective semester to a meeting two days after the semester commencement meeting, where the final group formation takes place. The study secretary participates in the meeting as needed.

The meeting does not take place if all students have sent the final groups to the semester coordinator and the study secretary in connection with the semester commencement meeting or the day after.

In the following days, the semester coordinator assigns the groups a supervisor, who is anchored in the chosen project proposals.

In the 1st semester of the Bachelor of Science and Bachelor of Engineering programmes with administrative group formation, the study secretary forms the groups before the semester commencement meeting. The project proposers present their project proposals at the semester commencement meeting as in other semesters, but the students inform the semester coordinator and the study secretary of their project choice via email no later than 2 days after the semester commencement meeting. No meeting is held between students and the semester coordinator in the 1st semester of the Bachelor of Science and Bachelor of Engineering programmes.

Students in the 1st semester of the master's programme must form mixed groups consisting of students with a bachelor's degree from AAU (AAU background) and students with a bachelor's degree from other universities (non-AAU background). See also below under Different Methods of Group Formation.

All project proposals and presentation videos must be available in Moodle for all students during the project selection period, **and the project proposer must be contactable so that students can ask detailed questions, especially if the project proposer was not present at the semester commencement meeting.**

With these rules, all students have time to read or watch all project proposals and decide what they want to work on during the semester.

Different Methods of Group Formation

Full student control

The students themselves control the group formation process. The semester coordinator defines the conditions for the group formation and supervises the process, including the number of groups, number of group members in each group, etc. It will help facilitate the group formation if the semester coordinator announces these conditions prior to the day of the group formation so the students can be prepared. The groups can be formed according to the topic of interest and/or the persons the students wish to be in a group with. As a starting point, the groups are not final until everyone is assigned to a group. The student representative for the semester/specialisation submits a consolidated list to the semester coordinator and the study secretary once the group formation has been completed.

Based on previous experience, the group formation process is carried out most effectively if the students demonstrate:

- Honesty – state your opinion, but in a nice way
- Openness – say what you think
- Respect – show your fellow students respect. Even when there is someone who you at first hand do not wish to be in a group with
- Responsibility – remember that you as a student are responsible for ensuring that the group formation is carried out without problems and that everyone is satisfied in the end.

If it, contrary to expectations, turns out that one or more students claim their right to write by themselves this right cannot be denied. However, the student(s) must be informed that the allocated supervision is reduced accordingly, e.g. proportionally according to the size of the group.

If it turns out that the other students refuse to accept one or more students in a group (it is impossible to close the groups) resulting in students involuntarily left without a group, it will be possible in certain cases to agree upon a 'conditional' admission to a group. This means that a student, who experiences difficulties with finding a group, is accepted by a group on the condition that the collaboration between the group and the student proceeds satisfactorily. In this way, the group can reserve the right to exclude the student in question within a period agree upon (try-out period).

It is the responsibility of the semester coordinator to supervise the group formation process and to step in if the process reaches a deadlock. Normally, the semester coordinator is not present at the actual group formation but must be available in case of problems. If the students are not able to manage the group formation process themselves, the semester coordinator must intervene and can then for example divide the groups administratively.

Students are allowed to form groups across similar specialisations if the learning objectives of the project theme can be achieved by a joint project.

Partial student control

In some cases, it can be necessary to control the group formation process to a larger extent than with full student control, but in such a way that it is still possible for the students to have influence on the group formation.

Partial student control could be if the groups are changed from semester to semester to ensure new groups. The rules for full student control still apply, but additional rules for the group formation process may be established. Examples of such rules include:

Point 1:

More than half of the group members must not be from the same group as in the previous semester.

Point 2:

In semesters with students who do not have an AAU background, it should be ensured that students with and without an AAU background are mixed. This applies both to international exchange students at bachelor's level and to all students at master's level.

If necessary, additional rules may also be established by the semester coordinator. Reference is made to the appendix "Procedure for the group formation process in the 2nd semester of the bachelor's and diploma engineering programmes and the 1st semester of the master's programmes at AAU Energy" for examples of how a partially student- controlled group formation process can be facilitated.

The appendix must be used for these semesters but can also be applied to other semesters if relevant. The appendix is attached to these rules.

Administrative group formation

In some cases, it may be an advantage to form the groups administratively. This is typically the case in the first semester of a study programme where the students do not know each other yet. This approach can, however, be unsuitable if the project groups have different topics, because the individual student is then deprived of the possibility to freely choose of topic.

With an administrative group formation, the groups can either be composed randomly, or they can be formed based on a prioritised list to compose a group of students with different competences.

Group Sizes and Methods

Group sizes are determined by the Head of Studies in cooperation with the study board, and the aim is to ensure that projects are carried out in groups. The group sizes and methods of group formation are recommended to be:

- 1st semester: 7 students per group; administrative group formation
- 2nd semester: 7 students per group; partial student control **Point 1**
- 3rd semester: 6 students per group; partial student control **Point 1**

- 4th semester: 6 students per group; full student control
- 5th semester: 6 students per group; partial student control **Point 2**
- 6th semester: 4 students per group; partial student control **Point 2**
- 7th semester B.Eng.: project must normally be written individually
- 1st semester master's programme: 4-6 students per group, partial student control **Point 2**
- 2nd semester master's programme: 4-6 students per group; full student control
- 3rd semester master's programme: 2-4 students per group; full student control
- 4th semester master's thesis or extended master's thesis: Max. 3 students per group; full student control

Especially for 1st Semester MSc Students

The following applies in order of priority

1. Students must form mixed groups between students with a bachelor's degree from AAU (AAU background) and students with a bachelor's degree from another university (non-AAU background).
2. Students with an AAU background have the right to be at least 2 in the group. The same applies to students with a non-AAU background. Mixed groups are prioritized over project selection.
3. The group is assigned a supervisor who has previously supervised groups on the master's programme.
4. The group size is generally between 4-6 students, depending on the group room and number of students (smaller group size is only allowed in special circumstances and must be approved by the semester coordinator).
5. TEPE+HYTEC students are welcome to form mixed groups across the two specialisations.
6. EPSH+HWPS+PED students are welcome to form mixed groups across the three specialisations.
7. Each student may indicate up to two preferred project proposals in order of priority, after which the students spend time discussing the project proposals in smaller groups and preferably in different constellations. For further explanation of how this process should be facilitated, see the appendix "Procedure for the group formation process in the 2nd semester of the bachelor's and diploma engineering programmes and the 1st semester of the master's programmes at AAU Energy."
8. The groups are formed to comply with **Points 1 and 2**, and thereafter to ensure that as many students as possible have their preferences met. Once all students have been assigned to groups, this distribution must be approved by the semester coordinator.

As a rule, the process is managed by the students themselves, however under guidance from the semester coordinator. It is the responsibility of the semester coordinator to inform the students about this procedure as well as the general rules for group formation.

It should be noted that students without an AAU background are not familiar with this process and must therefore be introduced to these principles in order to facilitate a smooth process and provide them with the opportunity to make an informed decision regarding their project work.

Split-Up of a Group

As a last resort, a group of students can be split up if the collaboration does not work and the main supervisor or semester coordinator has actively attempted mediation, etc. All the students are equally entitled to the materials (documents, data, prototypes, experimental setup, etc.) that exist at the time of the split-up. Before the group is split up, a clarifying meeting with the main supervisor and the semester coordinator must be held. The split-up must take place well in advance of the conclusion of the project period, i.e. within the first

1-2 months of the project period. If the period is exceeded, the group should apply for an exemption from the study board.

Appendix

Procedure for the group formation process in the 2nd semester of the bachelor's and Bachelor of Engineering programmes and the 1st semester of the master's programme

The semester coordinator facilitates the group formation process at the start of the semester.

1. Presentation of project proposals

The project proposals are presented to all students.

Break (10 min.)

2. Review of rules for group formation

The semester coordinator presents the main points of the Rules for Group Formation including:

- No groups are closed until all students are part of a group (collective responsibility)
- The dialogue must be open, honest, respectful, and responsible
- You should be able to face each other afterwards

3. Selection of first and second priorities (15 min)

- Priorities are written on a shared board
- Project proposals that are not selected are removed

4. Possible project groups – discussion round

During the students' internal discussions, the semester coordinator leaves the room.

Purpose:

All students can talk with several different students across project proposals. This provides a better basis for choosing both group and project.

- Each project proposal is assigned a table or an area in the room
- Students may move between project proposals and participate in discussions about expectations and ways of working

5. Meeting for first priorities (5-10 min.)

All students who have indicated a specific project as their first priority meet at that project and discuss possible group formation.

6. Meeting for second priorities (5-10 min.)

Similarly, all students who have indicated the project as their second priority gather and discuss possibilities.

Break (10 min.)

7. New round about preferred projects and in preferred groups

A new discussion round is conducted focusing on:

- Composition of groups
- Clarification of expectations

The semester coordinator assists the groups as needed in achieving appropriate group formation, including suggesting redistribution of students between groups.

8. Finalisation of groups

The semester coordinator assesses whether the groups comply with the applicable Rules for Group Formation, and it is discussed whether adjustments are needed before the final groups are established.

Following-up meeting (approx. 2 days later – might be cancelled)

Purpose:

To ensure that all students have had time to reflect and, if necessary, adjust their choices.

- All students must attend if the meeting is held
- The semester coordinator is present
- The groups are finalised
- The student representative prepares a group list for the study secretary
- The semester coordinator may cancel the meeting if it is deemed unnecessary