# Teaching portfolio

1. Teaching CV: A list of teaching and supervision tasks, including specification of academic fields, scope, level (bachelor, master, continuing education, PhD). Please state the teaching method used (e.g. lecture, class teaching, exercises, supervision, examination, coexamination, distance teaching, internet-based teaching and evaluation of teaching). Please also indicate the language of instruction.

I have 10 years of experience being involved in PBL model teaching and supervision across all levels of education, bachelor's, master and PhD at Aalborg University. My teaching activities are strongly related to the energy field, where I teach energy planning, energy system analysis and modelling. I teach mostly in 7th and 8th semester on the master level and 4th semester of our bachelor studies.

I teach at different Master's cross-disciplinary programs such as Sustainable Cities (SusCi) and Sustainable Energy Planning and Management (SEPM) and bachelor's program By-, Energi- og Miljøplanlægning (BEM). I teach and supervise both in English and Danish.

I have experience in facilitating students from 4th to 10th semester hence students with a certain level of experience. I have facilitated groups from 4th to 6th semester on the bachelor program By-, Energi- og Miljøplanlægning (BEM), students on the 9th and 10th semester of Sustainable Energy Planning and Management, students in the 10th semester of the Sustainable Design program and groups and individuals on all semesters on Sustainable Cities program.

I have been a facilitator for 19 groups in the last 4 years, including individual students and groups with up to 6 members as well as co-supervision activities. I am currently also co-supervising a PhD student in Energy Planning. I have also been an active external examiner on previously mentioned master's programs.

I have examined students in the Energy Planning course for the last 4 years.

2. Study/programme administration and management: Experience in programme management and coordination. A list of study administration tasks, e.g. study board membership, chair of study board, semester or course coordinator, accreditation tasks, etc. Experience in planning teaching activities. Experience in programme development. Participating in committees and commissions etc. on education issues.

I have developed extensive coordination skills working within administration activities on different levels from curriculum development, research group teaching coordination and detailed planning such as semester and course coordination as well as contextual activities of planning and supporting study environment and students and education marketing.

#### Program coordination and study board

I am program coordinator for Sustainable Cities master program and am Study board member in Study Board for Planning and Surveying.

## Semester and course coordination

My course administration activities are mostly related to Sustainable cities program where I am coordinating 1st semester for 7 years now and have also been a module coordinator of System and Structure course and Sustainable Energy Planning course. I was also a module coordinator for Bæredygtige energisystemer: Økonomi, miljø og offentlig regulering under Energy technology education program where teaching takes place in Esbjerg. I have experience with cross-institutional coordination as some of the course coordinators, teachers and secretaries are from other institutes at AAU.

### Program development

I have been actively involved in in the process of restructuring Sustainable Cities study program and new curriculum development that was implemented in 2019. I am also a teaching coordinator in my research group Sustainable Energy Planning for the staff in Copenhagen.

Have been representing SusCi study program to new students at the open house day and to our bachelor students, and have previously been involved in organizing the graduation ceremony.

#### Other

I have also been involved in creating the good study environment for our students especially in their group rooms, in collaboration with other colleagues from the department and students themselves

3. Formal pedagogical training: A list of completed courses in university pedagogy, PBL courses, workshops, academic development projects, collegial guidance and supervision,

etc. Written assessment from the course in university pedagogy for assistant professors. Participation in conferences on pedagogy and didactics. Please enclose any documentation of the above, such as course certificates, references, etc

- · Adjunktpædagogikum at AAU
- "Basic Course in Problem Based Learning, the AAU -model" by AAU Learning Lab
- "Basic Course in Pedagogy for University Teachers" by AAU Learning Lab
- "Workshop Project Examination at Aalborg University" by AAU Learning Lab
- 4. Other qualifications: Conference contributions and attendance, contributions to debates, scientific articles on pedagogical issues etc. Peer supervision, editorials, mentoring experience or other types of competence development activities.

I have been regularly attending University Teaching day from my start at AAU

5. Pedagogical development and research: Development of new courses, teaching materials, teaching methods, examination types or other types of pedagogical development. Didactic and pedagogical research. Cooperation with external collaboration partners.

I have been actively involved in in the process of restructuring Sustainable Cities study program and new curriculum development that was implemented in 2019. I have developed the Sustainable Energy Planning module together with colleagues, am module coordinator and have developed teaching and exercise material for parts of the course.

I have established semester project collaboration with external business partner (Rambøll) in 2018 through Ørestad Innovation City Copenhagen (ØICC)

6. References on your teaching skills from superiors or colleagues. Teaching evaluations and any teaching awards received.

Type your answer here...

7. Personal reflections and initiatives: Here you may state any personal deliberations as regards teaching and supervision, any wishes and plans for further pedagogical development, plans for following up on student feedback/evaluations, etc. Personal reflections on your own pedagogical practice, including objectives, methods and implementation. This should include an analysis and a reasoned description of your pedagogical activities in relation to your pedagogical understanding and student learning. Thoughts on the teaching method at Aalborg University (which is largely based on grouporganised project work and problem-based learning)

I have only been teaching in a Problem Based and Project Based Learning environment and international study programs and my teaching philosophy is strongly linked to this. I believe that the teaching is in core a social act and I therefore put a high emphasis on having a positive attitude and positive environment in the class. A socially well-functioning class encourages willingness to ask questions, enables creativity and more peer-to-peer knowledge sharing, which I think is a very important part of the learning process. Students in our programs have diverse backgrounds, and in some cases also a significant age differences, thus it is very important to create an inclusive classroom where everybody feels comfortable to participate in discussions and do not hesitate to speak up and pose questions. During my graduate studies I have experienced different cultures through exchange programs. For that reason, I try to help students to feel welcomed and give extra attention to international students when needed. This is especially the case when it comes to the PBL method and working in groups as a lot of students are unfamiliar with group work or have different understanding of what this entails. Students do appreciate this and I believe that establishing a good relationship with students with a mutual respect, makes everybody's experience of the process more positive. I also put an effort to actively use student's names in the interaction.

Semester and course coordination is a role that I use to establish closer relations to the students. This helps for example students to feel more comfortable to approach me if they have issues or questions about the lectures, group work or program. I really enjoy this part as I can play a role in shaping the education program we are providing and influence students future. It is a very unique opportunity to have and by hearing student's comments and thoughts about the program I can do the changes or elaborate more the thoughts that are behind the curriculum in place.

I believe in active participation in the classroom and that the knowledge generated during the peer-to-peer discussions is the one to stay with the individuals. Discussion based classroom, where students also bring their doubts, knowledge and interest also help students to stay motivated. The reason why this is so important to me is that I have been educated by a very traditional university where the teachers were unreachable to most extent. Moreover, I have mostly been exposed to passive learning environment. Even when the open question was asked by the teacher, nobody dared to answer or say anything, as it was always a right or wrong answer. This is my main motivation to engage students in the classroom to become critical and ask daring questions, there are no stupid questions, maybe they can seem stupid at first but there are none. I have also been repeatedly exposed to memorizing facts rather than understanding. I am however, not a disbeliever that these two are exclusive of each other. According to (Kember, 1996), memorizing and understanding can complement each other if the learning environment encourages to use memorizing for understanding. To encourage this I try to use memorable examples so that students can understand the problem by examining the example. I believe that students learn best when they combine the theoretical and researched based knowledge obtained with competences and skills they achieve by group work. My teaching is mostly combining the knowledge and skills as I teach students to use energy system analysis tool where they can experiment with knowledge they learn during lectures and analyse how the system operates with different components by using the tool themselves through different exercises.

It is very important to me that students become skillful readers and effective listeners. I want them to learn to think critically and not to believe in everything they read, not everything is a peer-reviewed fact. As an example, I have asked students to debate for and against renewable energy, as it is unfortunately very common that they miss the overall picture, one needs to understand the both sides of the medal. I aim at mixing the groups and having interaction between different students in order for them to be exposed to different ways of thinking and potential disagreements. I have confidence in that disagreements can be a good way of learning as you need to agree on the common understanding in order to solve the disagreements. Some students are very quick and brittle in answering the questions and solving problems and some take more time, work more and harder to achieve the same level. It is important to me to accommodate their differences and help them to reach the best outcome. I therefore prioritize to mix students with different skill levels and experiences when we do assignments in the classroom, such as making mixed groups of BEM students that have been used energy planning tool and new students that do not have such a background experience.

I am lucky that I have been teaching only things that I myself find interesting and have a possibility to adapt my lectures during the semester. I try to link research with teaching and according to Haley, 2005 (p. 187) I mostly do it by developing students' appreciation of research in discipline and encouraging their research skills (typically through their project work). My teaching is not fully linked to my research therefore by using these non-direct links I am still able to make students aware that the research is an essential part of their education process.

At the start of my PhD I have attended classes that were taught by a colleague of mine, as the intention was that I will take over the teaching. It was such a nice experience to see this outstanding teacher in action. He was using a lot of examples and also talked in a really simple language. These observations helped me to shape my teaching philosophy, even though until I started my PhD have never thought that I would be a lecturer nor that I would enjoy it this much.

As a facilitator, I believe that students are responsible for their own learning and this is a valuable principle I have learned through training in PBL method. I therefore try to master different types of facilitation that will help to stimulate progression in students' projects and to adapt to different stages of learning.

# 8. Any other information or comments.

Type your answer here...