Teaching portfolio

1. Teaching CV: A list of any lecturing and supervision tasks, including specification of academic fields, scope, level (bachelor, master, continuing education, PhD) as well as any external examiner tasks.

Since 2012, I have been lecturing and supervising at Aalborg University at both the bachelor's and master's level. The activities have been distributed in the following programs:

Urban, Energy and Environmental Planning (bachelor program)
- 1st semester semester coordination (2019-currently)
- 1st semester supervision (2012-currently)

Environmental Management and Sustainability Science (master program)
- Supervision at the 1st, 2nd and 4th semester (2012-currently)

Sustainable cities (SiCi) master program
- Lecturing in circular cities at the 2nd semester (2022-currently)
- Supervision at the 2nd, 3rd and 4th semester (2021-currently)

Course in Problem-based learning at various educations at the Technical Faculty of IT and Design and the Faculty of Engineering and Science (bachelor program):
- Course coordination of and lecturing at the course in problem-based learning for the educations: Robotics, electronic systems and product, computer technology and design psychology (2019-2021)
- Lecturing at the course in problem-based learning for the educations energy, engineering science, Global Business Engineering and Mechanics and Production (2022-currently)
- Teaching assistant at the course in problem-based learning (2013-currently)

My main teaching contribution is in connection with the education Urban, Energy and Environmental Planning (bachelor level), Environmental Management and Sustainability Science (master level), Sustainable Cities (Master level) and the course Problem-based Learning in Science, Technology and Society. In the bachelor program in Urban, Energy and Environmental Planning, I am especially involved at the first semester, where I coordinate the first semester and supervise semester projects, and at the fifth semester where I am part of the course “companies environmental impacts” and supervises semester projects. However, I have also supervised projects and given lectures on various other semesters especially the 7th semester.

Since 2013, I have been involved in the course Problem-based Learning in Science, Technology and Society, a course which introduced the problem-based learning model to students at the first year. First as a teaching assistant, then as a teacher course coordinator. I was also involved in the coordination group developing the new problem-based learning course at the first year and the development of workshops which can support progressive learning objectives in problem-based learning though various semesters and educations at Aalborg University.

I have a wide experience with problem-based learning, through my teaching activities but also through my own education where I took my master in Environmental Management and Sustainability Science. So, I have profound experience with and understanding of the problem-based learning model.

2. Study administration: A list of any study administration tasks, e.g. study board membership, head of studies or semester or course coordinator, accreditation, etc.

Spring 2019 to 2023, I have been involved in course administration as I have had the responsibility for the following coordination tasks:
•Coordination of the first semester at the bachelor programme: Urban, Energy and Environmental Planning.
•Coordination of the module Problem based learning at the first year for the first year for students at Electronics and IT, Robotics, Product and Design Psychology and Communication Technology

I find that the involvement in the course administration has provided me with a more thorough understanding of the study administration.
pe your answer here...

3. University pedagogy qualifications: A list of any completed courses in university pedagogy, PBL courses, workshops, academic development projects, collegial guidance and supervision, etc.

Adjunktpædagogikum

I have completed the Adjunktpædagogikum at the Centre for University Teaching and Learning, Aalborg University. It is a professional course in problem-based learning with focus on key aspects of teaching and project supervision. The course consist of five mandatory course modules, an AP certification Programme in English (documentation included) and 3 elective modules:

- Module 1: Teaching at a PBL University
- Module 2: Planning and Implementation of group Instructions
- Module 3: The Use of IT and Media for Learning and teaching
- Module 4: The PBL Group Collaboration, Process and Supervision
- Module 5: Planning, Development and Quality Assurance of Study Programmes
- Elective module: Flipped teaching with podcasts
- Elective module: Understanding exam regulation
- Elective module: Enable your students' creativity during your teaching
- C1 level of the Common European Framework of reference for Languages (CEFR)

PBL-coordination group:

In connection with the reorganisation of the course in problem-based learning I took part in the coordination group. The coordination group took part in the development of the new problem-based learning course at first semester and 3 workshops on problem-based learning on higher semesters on all educations at Faculty of Engineering and Science and the Technical Faculty of IT and Design.

In addition to the adjunktpædagogikum, I have participated in the following workshops, working groups and seminars on pedagogical development and the use of IT in teaching:

- Full day seminar on sustainability in teaching in connection with the research project Youths Go Green (November 2022)
- Workshop on digital portfolios (mahara) February 2020
- Workshop on Digital Supported Learning offered by PBL Digital@TECH (April 2019)
- Workshop on the progressive problem-based learning objectives (April 2019)
- Grundkursus for Universitetsundervisere arrangeret af Aalborg Universitet Learning Lab (August 2014)
- Assessment in a Problem Based Learning (PBL) Environment arranged by Anette Kolmos and Jette Holgaard from the department of Planning, UNESCO chair in PBL (June 2013)
Basic course for university teachers arranged by Aalborg University Learning Lab
- PBL-working group

4. Other qualifications: Conference attendance, editorials, presentations, etc. relating to education, 'University Teaching Day', etc.

5. Teaching activity development and teaching materials: A list of any contributions to the development of new modules, teaching materials, study programmes, e-learning, collaboration with external business partners, etc.

Development of teaching material in the KATCHe project:

I have been part of a larger Erasmus+ project called Knowledge Alliance on Product-service Development towards Circular Economy and sustainability in Higher Educations (KATCHé) running from 2017 until 2020. In the KATCHe project, 11 partners from 4 countries work together to build skills and competencies to develop circular and sustainable product-service solutions in the construction and furniture industries. In the project educational programs are developed that promote circular approaches in the building and furniture industries. The content is aimed at students as well as professionals in companies, with a particular focus on the development of sustainable product-service solutions. The project is now finalised and the teaching materials is published at the homepage: https://www.katche.eu/knowledge-platform/ . The teaching materials includes an online course, various tools and teaching materials In the project, my specific contribution was to co-write the first module on an introduction to circular economy called: Business Models for circular Economy and Sustainability Course: Introduction to the Circular Economy.

Youths Go Green (2022-2023)

From 2022 to 2023 I have participated in the research project Youths Go Green funded by the Novo Nordisk Foundation. The project is a collaboration between University College Nordjylland, Aalborg University, Region Nord and Aalborg Municipality. The purpose of the project is to increase young people's interest in the STEM subjects through teaching courses where students work with sustainability and a local company. The project is aimed at youth educations and primary schools. My role in the project has been to participate in a didactic course for the teachers, prepared the evaluation and the coordination of the youth-to-youth teaching. The project has given me insight into new didactic issues

in connection with the teaching of sustainability. More information about the project can be found here: https://www.youthsgogreen.dk

6. Teaching awards you may have received or been nominated for.

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 pedagogic development, plans for following up on feedback/evaluations from students, etc.

My own pedagogic outset is in the problem-based learning model as practiced at Aalborg University, as I have been working with this learning model for 10 as a university teacher. Therefore, my overall philosophy for teaching is:

- To provide inspiring teaching that is novel for the students and research based.
- That to learn the students need to be active because it is through the students interpretation of the presented material that learning and knowledge is constructed
- That the core in learning is motivation and a way to drive motivate is for the students to work with solving relevant and current problems.
- That group based learning helps motivate and sustain the students learning activities.
- That the students need to take responsibility of the own learning

My role as a supervisor:
My main role as a supervisor is to support the students in taking responsibility for their projects and learning process. I believe this is the core of the problem-based learning model that the students learn to identify relevant problems, methods and theories to solve the problems. My role is then to help guide and facilitate the process, and to provide research-based inputs for the discussion of relevant problems, methods and theories. Furthermore, my role is to help them stay on “the right track” meaning more specifically that they stay within the curriculum of that specific semester project.

As semester coordinator and supervisor at the 1st semester I experience closely the difficulties of students in their transition from a traditional teacher based learning model (which many of them are familiar with from high-school) towards a student driven learning model which is the base of the problem-based learning model. Where the students are to develop into self-directed life-long learners. I believe that this is one of the most central roles, I play as a supervisor at the first year to provide them with this learning, which can help them through the rest of their studies.

Lecturing:
I also strive to activate the students during lectures. Therefore, I organized my lectures so that half of the time goes to presentation and the other half goes to assignments. I also includes small assignments and group discussion during the presentations, this keeps the student active, but it also help me to evaluate if the students have really understood the material presented. Furthermore, I work with alternative formats in my teaching such as workshop to help facilitate more group discussions and a more active learning model and student presentations.

To anchor the problem-based-learning model stronger in my lectures, I work on developing more problem-based assignment for the students to work as part of the lecture. An example is in the course “virksomhedens miljøpåvirkninger”, where I give a lecture on environmental economics in companies with a specific focus on energy and waste. To use in this lecture, I have developed an assignment, where the students takes outset in a real dataset from company and then needs to calculate and analyze their energy consumption and develop cost-efficient solutions that can help reduce their energy-consumption.

8. Any other information or comments.

Type your answer here...