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.

Courses:
BSc course: Energy Physics, AAU, 2025-Current
BSc course: Optoelectronics, AAU, 2021-Current
BSc course: Nanofabrication, AAU, 2021-Current
MSc Course: Optoelectronics II, Quantum Optics, TUHH, Germany. 2017-2021

Supervision activities incl. project examiner:
MSc Physics and Nanotechnology. Aalborg University. 2021 to present.
BSc Physics and Nanotechnology. Aalborg University. 2021 to present.

Some additional examiner activities:
Written exams conducted as Moodle tests in courses.
Examiner in oral course exams and course re-exams.

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.

N/A

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

Completed in 2023. Includes the following activities:
Compulsory module 1 (Teaching at a PBL University) – 8th February 2023.
Compulsory module 2 (Planning and Implementation of Group Instruction) – 27th March 2023.
Compulsory module 3 (Synchronous session) – 03rd May 2023.
Compulsory module 4 (The PBL Group – Collaboration, Process and Supervision) – 13th April 2023
Compulsory module 5 (Planning, Development and Quality Assurance of Study Programmes) – 10th May 2023.
Elective 1 (Research Integration) – 28th September 2023.
Elective 2 (Digital Technologies in University Pedagogy) – 05th October 2023.
Elective module 3 (Copyright and Plagiarism) – 24th October 2023.
English certification Course 1: Lecturing in English to non-native speakers of English– 18th April 2023
English certification Course 2: Pronunciation, – 14th March 2023
AAU learning day (incl. workshop on Digitalization and Student Engagement)– 12th May 2023.
CEFR certificate (C1 on CEFR) – 22nd June 2023.

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.

Attendance "AAU Learning Day" from 2023-present.

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.

My pedagogical development has been driven by the principle of “learning by active involvement”, which I have systematically integrated into my courses through innovative teaching methods and course design. Over the years, I have contributed to the development of new teaching materials, interactive lecture models, and alternative examination formats that emphasize both conceptual understanding and practical application.

I have designed and implemented a variety of active learning methods, including recap segments, brainstorming sessions, student-led workshops, flipped classroom models, and problem-solving activities. These strategies not only enhance engagement but also serve as formative assessment tools, allowing students to monitor their own progress while providing me with feedback to adjust teaching approaches dynamically. I have also developed multimedia-supported teaching materials (e.g., visual demonstrations, videos, interactive simulations) that help transform complex and abstract concepts in nanofabrication, optoelectronics and energy materials into accessible and concrete learning experiences.

In terms of course development, I have introduced modules and case studies connecting theoretical material with real-world applications in areas such as thermophotovoltaics, hydrogen generation, and nanotechnology. These additions strengthen the link between fundamental concepts and their societal and industrial relevance, thereby preparing students for both academic and applied career paths.

Regarding assessment formats, I have experimented with frequent low-stakes quizzes, internal tests, and student presentations, alongside traditional examinations. These alternative formats provide continuous feedback, encourage regular study habits, and develop key transferable skills such as scientific communication, teamwork, and critical thinking.

My pedagogical development has been informed by both formal training (e.g., AAU pedagogy courses) and didactic research, as well as by active cooperation with colleagues and supervisors. This input enriches the learning process and ensures that teaching remains aligned with contemporary scientific and technological developments.

Going forward, I intend to build on this foundation by systematically documenting and disseminating the outcomes of these teaching innovations, with the aim of contributing to the broader field of pedagogical research in science and engineering education.

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

N/A

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 group-organised project work and problem-based learning)

My pedagogical approach is informed by a commitment to fostering student-centered learning through active engagement, structured guidance, and critical reflection. I view teaching not merely as the transmission of knowledge, but as the facilitation of processes in which students develop autonomy, problem-solving capacity, and the ability to apply disciplinary knowledge to real-world challenges. Aalborg University’s emphasis on project- and problem-based learning (PBL) resonates strongly with this perspective, and I regard it as a powerful framework for cultivating both subject mastery and transferable skills.

As part of my pedagogical development, I have completed the compulsory AAU PBL course modules—Teaching at a PBL university; Planning and implementation of group instruction; The use of IT and media for learning and teaching; The PBL group-collaboration, process and supervision; Planning, development and quality assurance of study programmes—along with three elective modules—Research integration; Digital technologies in university pedagogy; Copyright and plagiarism. These courses have provided me with both theoretical foundations and practical strategies for addressing core challenges in higher education, including maintaining student motivation, supporting effective group collaboration, and preventing cognitive overload when working with ambitious learning objectives.

In addition, I undertook three further English certification courses, beyond the formal requirements, to enhance my capacity for teaching international students. I achieved AAU certification in English as a medium of instruction at the C1 level of the Common European Framework of Reference for Languages (CEFR). This reflects my deliberate effort to refine the clarity, inclusivity, and accessibility of my teaching for both Danish and non-Danish students.

My teaching practice integrates a variety of methods in alignment with AAU’s PBL tradition. Lectures are employed to establish foundational knowledge, complemented by recaps and visual aids to reinforce understanding and address different learning styles. Questioning techniques, quizzes, and internal tests are incorporated to stimulate active participation, provide timely feedback, and identify areas where students require further support. Structured problem-solving sessions and workshops allow students to apply concepts directly, thereby deepening their comprehension. Moreover, the flipped-classroom approach has proven particularly effective in encouraging students to take ownership of their learning, preparing in advance, and subsequently engaging in collaborative group work. These approaches not only support conceptual understanding but also enhance teamwork and communication skills, which are central to the PBL

model.
Regular analysis of course evaluations and student feedback plays an integral role in my pedagogical practice. I regard such feedback as a vital mechanism for iterative improvement. Preliminary evaluation data indicate strong levels of student engagement and positive learning outcomes, while also highlighting opportunities for refinement, particularly in balancing workload and opportunities for deeper exploration of course material. Moving forward, I intend to strengthen mechanisms for mid-course feedback to ensure that student input can be acted upon dynamically during the teaching process.
In summary, my pedagogical philosophy is one of continuous reflection and evidence-based adaptation. By integrating multiple teaching methods, actively responding to student feedback, and aligning with the principles of project- and problem-based learning, I strive to create an inclusive, engaging, and effective learning environment. My ongoing objective is to contribute to a teaching culture at Aalborg University that empowers students to take responsibility for their own learning while preparing them to address complex scientific and societal challenges.

8. Any other information or comments.

Type your answer here...