

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.

All my teaching has been conducted in english and always consist of lectures with in-class teaching with connected exercises (if not explicitly mentioned differently).

SAARLAND UNIVERSITY (2010-2015):

Lecturing:

Computer Science

- Affective Lighting – MSc (Seminar SS15 7ECTS)

- oLighting Design, Embedded Electronics

- Mobile Interaction Design – BSc (Seminar WS13/14, SS12 5ECTS)

- oAcademic Writing, Mobile Interaction Design

- Tangible Maps – BSc (Seminar WS12/13 7ECTS)

- oBasic Geographic Concepts, GIS, Data Visualization

- Massive Mobile Urban Computing – MSc Supported by Microsoft Research (Seminar SS12 7ECTS)

- oMobile Application Design, Urban Computing, Distributed User Interfaces

- Mobile Context-Aware Application Development – MSc (Seminar SS10 7ECTS)

- oContext Recognition, Mobile Application Design, Android Programming

Supervision

- MSc Thesis: 4 students, BSc Thesis 9 students

AALBORG UNIVERSITY (2016-Today):

Lecturing:

Art and Technology

- Programming I – 2nd Semester BSc (F16 1ECTS)

- oBasic Data Types, Variables, Control Structures, Functions

- Programming II – 3rd Semester BSc (E16, E17 2ECTS)

- oObject Oriented Programming, Advanced Algorithms and Data Structures, 2D and 3D Graphics

- Programming III – 3rd Semester BSc (E16 - E22 2ECTS)

- oRecursion, Protocols, Serial Communication, Sound Processing

- Programming IV – 6th Semester BSc (F16 - F22 1ECTS)

- oBasic Computer Vision, OpenCV, Live Video Processing

- Artistic and Academic Methodologies III (Affective Design) – 3rd Semester BSc (E17, E21, E22 1.5ECTS)

- oAffective Computing, Qualitative- and Quantitative Data Gathering and Analysis, Triangulation

- Aesthetics and Interaction – 4th Semester BSc (F16 - F22 2ECTS)

- oPublic Displays, Media Facades, Urban Interaction, Sustainable HCI

- Interactive Technologies – 4th Semester BSc (F16, F17, F18 1ECTS)

- oTangible User Interfaces, Biometric Sensing, Gestural Interaction

- Multimedia Programming – 5th Semester BSc (E16 - E22 5ECTS)

- oRobotic Motion Programming, Turtle Geometry, Random Walk, Markov Chains, Soft Robotics

Medialogy

- Interaction Design – 2nd Semester BSc (F17 - F22 5ECTS)

- oUser Requirements, Conceptual and Mental Models, Simple Prototyping Techniques, Qualitative- and Quantitative Data Gathering and Analysis, User Evaluation

- o This course has been taught as a flipped class room course since F21

- Prototyping and Fabrication Techniques – 1st Semester MSc (E16 - E21 5ECTS)
 - oAdvanced Micro-Controller Programming, Circuit and PCB Design, Sketching and Ideation Techniques, Sensors and Actuators, Wireless Communication, 3D Printing, novel Prototyping Techniques

- Mobile and Wearable Computing – 1st Semester MSc (E22 5ECTS)
 - o Mobile Computing possibilities and limitations, Mobile Interaction Techniques, Wearable Technologies, Social Acceptability, Microcontrollers and Prototyping techniques for wearables
 - o This class is taught as a flipped class-room course with pre-recorded videos.

Mobilities & Urban Studies

- Mobile Tracking Technologies – 2nd Semester MSc (F17 - F22)
 - o GIS and Spatial Analysis Basics, GPS-Tracking, Eye-Tracking, Spatial Data Analysis
- Industrial Design (SADP)

- Digitalt Understøttede Brugerflader og Produkter – 4th Semester BSc (F16, F17, F18)
 - oBasic Programming, Electronics, Arduino, Sensors and Actuators, Wireless Communication

PhD:

- Robots and Sustainability (E22)

Supervision:

Medialogy:

- 2nd Semester BSc: 5 Students (F21)
- 6th Semester BSc: 8 Students (F17)
- 1st Semester MSc: E17: 9, E18: 4, E19: 4, E20: 13, E21: 3, Students
- 2nd Semester MSc: F18: 12, F20: 6, F21: 10, F22: 3 Students
- 3rd Semester MSc: E18: 4, Students
- 4th Semester MSc: F19: 7, F20: 4, F21: 8, F22: 12 Students

Art and Technology:

- 3rd Semester BSc: E16: 15, E17: 18, E18: 13, E19: 14, E20: 11, E21: 13 Students
- 4th Semester BSc: F16: 14 Students
- 6th Semester BSc: F19: 2 Students

PhD:

- Walther Jensen - Towards Democratizing the Fabrication of Electrochromic Displays (2018-2022)
- Aysegül Özcelik - Longevity and Smart Product Design (2021 - Ongoing, Co-Supervisor: Christian Tollestrup)

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.

- Stand-In Study Board Member for Anthony Brooks in the Art and Technology Study Board (E17)

- Member of the study board of Kunst og Teknologi, Music and Music Therapy since E20

- Workgroup member for the MSc Revision for Medialogy (2021)

- Semester Coordinator

- oArt and Technology 3rd Semester BSc - Dynamic Art and Technology (E16-E22)
- oMedialogy 2nd Semester BSc (F22)

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

In the period between November 2016 - February 2018 i participated successfully in Aalborg Universities Adjunktpædagogikum - University Pedagogy for Assistant Professors (organized by AAU Learning Lab).

As part of this I participated in the following courses:

17/11/2016 Introduction Seminar to the Adjunkt pædagogikum
06/02/2017 Course Module 1 – Teaching at a PBL University
22/03/2017 Course Module 3 – The Use of IT and Media for Learning and Teaching
12/04/2017 Elective – Understanding Exam Regulations
03/05/2017 Elective – PBL in Engineering Science
04/05/2017 AAU Teaching Day
17/05/2017 Course Module 2 – Planning and Implementation of Group Instruction (Session 1)
24/05/2017 Elective – Copyright and Plagiarism
07/06/2017 Course Module 2 – Planning and Implementation of Group Instruction (Session 2)
20/09/2017 Course Module 4 – The PBL Group – Collaboration, Process and Supervision (Session 1)
01/11/2017 Course Module 4 – The PBL Group – Collaboration, Process and Supervision (Session 2)
08/11/2017 Course Module 5 – Planning, Development and Quality Assurance of Study Programmes

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.

Together with Walther Jensen, Caglar Genc, Jonna Häkkinen and Ashley Colely, I have been teaching a course on "Prototyping of Transparent and Flexible Electrochromic Displays" at the ACM CHI Conference on Human Factors in Computing Systems - the premier international conference of Human-Computer Interaction - in 2019 and 2022 (<https://dl.acm.org/doi/abs/10.1145/3491101.3503754>), which was evaluated at the best course at CHI 2019.

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.

Besides the development of new courses such as Mobile and Wearable Computing or new course materials such as the flipped classroom videos for Interaction Design, I am actively involved in the ABRA (and follow-up ABRAX) Erasmus+ Project. ABRA (Artificial Biology, Robotics and Art) is a project aimed to address innovation and renewal of education by developing transdisciplinary higher education methods that bridge the arts and sciences for enhanced sustainability, specialising in the fields of artificial biology, robotics, and art. The project explicitly promotes transdisciplinary knowledge and capacity building in higher education in order to tackle the skills gaps in addressing environmental problems and climate change, and promoting excellence in teaching and skills development for students and educators. The goal is to establish a novel European Joint Erasmus Mundus Master degree. Furthermore, in a NordPlus project that is aiming at developing a new Master Course in Wearable Intelligence.

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

I have been Teacher of the Year in the Study Board of Kunst og Teknologi, Music and Music Therapy in 2020 (<https://www.art.aau.dk/news/show-news/markus-l-htefeld-er-aarets-underviser-paa-kunst-og-teknologi.cid498690>)

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)

Skriv dit svar her...

8. Any other information or comments.

Type your answer here...