

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.

Full university courses developed, taught and examined:

1. "Programming mobile applications", since 2022, 5 ECTS, Medialogy BSc, Aalborg University
2. "Mixed Reality Technologies", since 2021, 5 ECTS, Art and Technology BA, Aalborg University
3. "Algorithms, data structures and software engineering for media technology", 2017-2022, 5 ECTS, Medialogy MSc, Aalborg University
4. "Technologies for Web and Social Media", since 2016, 5 ECTS, Medialogy BSc, Aalborg University
5. "Programming for Interaction", 2015-2021, 5 ECTS, Medialogy BSc, Aalborg University
6. "Scientific Methods and Communication", 2009-2021, 1 ECTS, Medialogy MSc, Aalborg University
7. "Human Senses and Perception", 2017-2018, 5 ECTS, Medialogy BSc, Aalborg University
8. "Multimedia programming", 2012-2016, 5 ECTS, Medialogy MSc, Aalborg University
9. "Perception", 2011-2016, 5 ECTS, Medialogy BSc, Aalborg University
10. "Object-oriented software engineering", 2012-2015, 5 ECTS, Medialogy BSc, Aalborg University
11. "Multimodal perception and cognition", 2011-2014, 5 ECTS, Medialogy MSc, Aalborg University
12. "Image and Sound Systems 3 2011-2012, 1 ECTS, Art and Technology BA, Aalborg University
13. "Audio and Music Processing", 2011, 3 ECTS, PhD course PhD, Aalborg University
14. "Perception 3 2011, 1 ECTS, Art and Technology BA, Aalborg University
15. "Programming", 2011, 1 ECTS, Art and Technology BA, Aalborg University
16. "Image and Sound Systems 1", 2010-2011, 1 ECTS, Art and Technology BA, Aalborg University
17. "Image and Sound Systems 2", 2010-2011, 1 ECTS, Art and Technology BA, Aalborg University
18. "GUIs, networking and multi-threaded programming", 2009-2011, 1 ECTS, Medialogy BSc, Aalborg University
19. "Object-oriented analysis, design and programming", 2009-2011, 2 ECTS, Medialogy BSc, Aalborg University
20. "Visual Perception", 2010, 1 ECTS, Medialogy BSc, Aalborg University
21. "Multimedia technology programming", 2009-2010, 1 ECTS, Medialogy MSc, Aalborg University
22. "Software engineering and research methods", 2006-2008, 5 ECTS, Computing BSc, Goldsmiths University of London
23. "Website design, implementation and management", 2006-2008, 5 ECTS, Computing BSc, Goldsmiths University of London
24. "Music perception and cognition", 2004-2004, 5 ECTS, Music Information Technology MSc, City University London
25. "Music perception and cognition", 2003-2004, 5 ECTS, Music BMus/BSc, City University London

Individual lectures given within other courses

1. "Music perception and cognition", since 2022, 1 ECTS, Sound and Music Computing MSc, Aalborg University Copenhagen
2. "Musikhistorie og problem-baseret læring", since 2022, 2 ECTS, Music BA, Aalborg University
3. "Auralization and sonification", 2011-2011, 5 ECTS, Medialogy MSc, Aalborg University

Group projects supervised at Aalborg University

1. 2009, Medialogy BSc, Sem. 4, 15 ECTS, "Virtual Music Interface" (09am434) (Interaction design – sound and sensors) (5 students)
2. 2009, Medialogy BSc, Sem. 4, 15 ECTS, "Orbital Sound Experience" (09am431) (Interaction design – sound and sensors) (5 students)
3. 2009, Medialogy BSc, Sem. 5, 15 ECTS, "Film Trailers" (09am534) (Audio-visual Experiments – Computer Graphics and Animation) (6 students)
4. 2009, Medialogy MSc, Sem. 7, 15 ECTS, "Building a framework for implementation of anti-lock braking system aided by surface detection for small-scale remote control vehicles" (09am733) (Mixed Reality Spaces) (4 students)
5. 2009, Medialogy MSc, Sem. 7, 15 ECTS, "Simplifying real-time light source tracking and credible shadow generation for augmented reality using ARToolkit (09am731) (Mixed Reality Spaces) (4 students)
6. 2010, Art and Technology BA, Sem. 4, 15 ECTS, "Nexus Nordkraft: An interactive Sound Installation" (Place and Space of Interaction) (4 students)
7. 2010, Art and Technology BA, Sem. 4, 15 ECTS, "Connect Me" (Group 4) (Place and Space of Interaction) (5 students)
8. 2010, Medialogy MSc, Sem. 7, 15 ECTS, "Orkestrariet: An interactive music learning installation for children" (10am731) (Mixed Reality Spaces) (3 students)
9. 2010, Medialogy BSc, Sem. 6, 15 ECTS, "Aduivo: User-centred interface design in content management systems for websites" (10am670) (Bachelor thesis – "Integrated design – intelligent systems and computer games") (2 students)

10. 2010, Medialogy BSc, Sem. 1, 10 ECTS, "Squire Squarefeet" (Computer game) (B351) (Creative Play, P0) (7 students)
11. 2010, Medialogy BSc, Sem. 1, 10 ECTS, "Koopa Troopa – Boohoo's adventure" (Computer Game) (B350) (Creative Play, P0) (6 students)
12. 2010, Medialogy BSc, Sem. 1, 10 ECTS, "Farmen" (Animal-welfare-themed game) (B347) (Designing for both sides of the screen, P1) (6 students)
13. 2010, Medialogy BSc, Sem. 1, 10 ECTS, "Dyrevelfærd Factory Farming" (B345) (Designing for both sides of the screen, P1) (7 students)
14. 2011, Medialogy MSc, Sem. 7, 15 ECTS, "Increasing legibility of musical notation" (MTA11736)) (2 students)
15. 2011, Art and Technology BA, Sem. 4, 15 ECTS, "Ludus Umbrarum" (Interactive installation at Aalborg Hospital) (Group 6) (Place and Space of Interaction) (5 students)
16. 2011, Art and Technology BA, Sem. 4, 15 ECTS, "Traces of Sound" (nteractive installation at Aalborg Hospital) (Group 3) (Place and Space of Interaction) (4 students)
17. 2011, Art and Technology BA, Sem. 4, 15 ECTS, "Forest – An interactive installation" (Interactive installation at Aalborg Hospital) (Group 7) (Place and Space of Interaction) (2 students)
18. 2011, Art and Technology BA, Sem. 4, 15 ECTS, "Discreet presence" (Interactive installation at Aalborg Hospital) (Group 8) (Place and Space of Interaction) (2 students)
19. 2011, Art and Technology BA, Sem. 4, 15 ECTS, "FairyChair Tale" (Interactive installation at Aalborg Hospital) (Group 9) (Place and Space of Interaction) (4 students)
20. 2013, Medialogy BSc, Sem. 4, 15 ECTS, "Koldinghus Castle Chapel – Interactive 3D soundscape" (MTA13436) (Sonic Interactions: Design and Evaluation) (6 students)
21. 2013, Medialogy BSc, Sem. 4, 15 ECTS, "Sonic Interaction: Use of fundamental frequency estimation in an edutainment based learning tool" (MTA13431) (Sonic Interaction: Design and Evaluation) (5 students)
22. 2013, Medialogy MSc, Sem. 10, 30 ECTS, "CriticalEd – a tool for making critical commentaries" (12930) (Masters thesis) (1 students)
23. 2015, Medialogy BSc, Sem. 2, 15 ECTS, "Sleep vs. Attention" (B211) (Quantifying Self - HCI) (6 students)
24. 2015, Medialogy BSc, Sem. 2, 15 ECTS, "Sleep and Reaction Time" (B201) (Quantifying Self - HCI) (5 students)
25. 2016, Medialogy BSc, Sem. 3, 15 ECTS, "Image processing methods for sign language recognition" (Visual Computing – Human Perception) (5 students)
26. 2016, Medialogy BSc, Sem. 4, 15 ECTS, "Enhancing retention through audio" (MTA-16435) (Sound Computing and Sensor Technology) (5 students)
27. 2017, Medialogy BSc, Sem. 3, 15 ECTS, "Quiz floor" (MTA17339) (Visual Computing – Human Perception) (5 students)
28. 2017, Medialogy MSc, Sem. 7, 15 ECTS, "A visually interactive interface to enhance audience involvement at live coding performances" (mta17737) (Sensing Media) (2 students)
29. 2017, Medialogy MSc, Sem. 9, 30 ECTS, "A server-exposed e-mail classification solution" (Internship in a company) (1 students)
30. 2018, Medialogy MSc, Sem. 10, 30 ECTS, "Danger recognition and visual aid for the monitoring of wayfinding robots in obstacle avoidance scenarios" (MTA181036) (Masters thesis) (2 students)
31. 2018, Medialogy MSc, Sem. 7, 15 ECTS, "A deep learning approach to scheduling" (MTA18730) (Sensing Media) (1 students)
32. 2019, Medialogy BSc, Sem. 6, 15 ECTS, "Using participatory design to co-design a social media data gathering tool for sociologists" (MTA19635) (Bachelor thesis – Interactive Systems Design) (4 students)
33. 2019, Medialogy MSc, Sem. 7, 15 ECTS, "Development of a replicable and robust hardware and software platform for robotic sailing research (MTA19735) (Sensing Media) (4 students)
34. 2020, Medialogy MSc, Sem. 8, 15 ECTS, "Sequence generative adversarial networks for music generation with maximum entropy reinforcement learning" (MTA20843) (Mediating Reality) (1 students)
35. 2020, Robotics BSc, Sem. 4, 15 ECTS, "Boatlette: Further development of a replicable and robust hardware and software platform for robotic sailing research" (Group 462) (Sensing the surroundings) (6 students)
36. 2020, Medialogy MSc, Sem. 9, 30 ECTS, "Project-oriented study in an external organisation at Logimatic" (Internship at a company) (1 students)
37. 2020, Medialogy MSc, Sem. 9, 30 ECTS, "Web developer internship at Dynamic-IT" (Internship at a company) (1 students)
38. 2020, Medialogy MSc, Sem. 7, 15 ECTS, "Developing a realistic sailing simulator for virtual reality" (MTA20737) (Sensing Media) (4 students)
39. 2021, Music MA, Sem. 7, 10 ECTS, "Montmartre 1958 – 1974: En musikhistorisk undersøgelse" (Musikhistorie og PBL, sidefag) (2 students)
40. 2021, Music BA, Sem. 1, 10 ECTS, "Mord, kirkeafbrændinger og metal musik – en Musikhistorisk afhandling om den Norske Black Metal Scene" (Musichistorie og PBL) (4 students)
41. 2021, Medialogy MSc, Sem. 7, 15 ECTS, "An investigation into the potential non-linear relationship between the perceived realism and empirical accuracy of tire models" (MTA7_gr10) (Sensing Media) (1 students)
42. 2021, Music BA, Sem. 3, 10 ECTS, "Metaforer I Musik" (Metode og empiri) (3 students)
43. 2021, Music BA, Sem. 3, 10 ECTS, "Lofi hiphops påvirkning på koncentrationsevnen" (Metode og empiri) (3 students)
44. 2022, Music BA, Sem. 2, 10 ECTS, "Taylor Swift: en undersøgelse i lydproduktionens udvikling og Taylor Swifts historie" (Analyse og videnskabsteori) (3 students)
45. 2022, Music BA, Sem. 2, 10 ECTS, "Lyden af James Bond: En undersøgelse af Agent 007 temasangene" (Analyse og videnskabsteori) (4 students)

46. 2022, Medialogy MSc, Sem. 8, 15 ECTS, "An attempt at verifying the utility of a vehicle simulator when testing the reliability of autonomous vehicles" (MTA8_gr10)(Mediating Reality) (1 students)

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.

Programme and Semester Coordination

Since 2009: Co-ordinator of the masters programme in Medialogy, AAU2009-2021: Co-ordinator of 1st semester of Medialogy masters programme, AAU

2011: Co-ordinator for the 4th semester of the Art and Technology BA programme, AAU

Design and drafting of study plans

2012 MSc in Medialogy, 8th semester, 5 ECTS, "Multimodal perception and cognition"

2012 MSc in Medialogy, 7th semester, 5 ECTS, "Multimedia programming"

2012 MSc in Medialogy, 7th-10th semesters, Description of semester project themes on Sound and Music Specialization

2013 MSc in Sound and Music Computing, 7th semester, 5 ECTS, "Music perception and cognition"

2013 MSc in Music Technology, 9th semester, 10 ECTS, "Music informatics"

2017 MSc in Medialogy, 8th semester, 5 ECTS, "Algorithms, data structures and software engineering for media technology"

2021 BSc in Medialogy, 2nd semester, 5 ECTS, "Programming of mobile applications"

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

March 2011 Adjunkt pædagogikum (Aalborg University)

16 Nov 2012 PhD supervisor qualification (Aalborg University)

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.

Supervision and career development of junior colleagues

I have acted as research supervisor for three postdocs (Olivier Lartillot, 2014-2017; Satya Mahesh Muddamsetty, 2019-2021; Brian Bemman, 2017 – 2020) and an Assistant Professor (Mohammad Naser Sabet Jahromi, 2019-2020). I have also acted as academic supervisor for three Assistant Professors for their adjunkt pædagogikum (Kamal Nasrollahi, 2013; Andreas Møgelmoose, 2021; Markus Löchtefeld, 2018).

PhD students supervised to completion

2012 - 2016 Gissel Velarde, "Convolutional methods for music analysis", Technical Faculty of IT and Design, Aalborg University, Denmark

2013 - 2016 Brian Bemman, "Computational Problems in Modeling Milton Babbitt's Compositional Process", Technical Faculty of IT and Design, Aalborg University, Denmark

PhD theses examined

2015, Antti Laaksonen, "Algorithms for melody search and transcription", Department of Computer Science, University of Helsinki, Finland

2018, Corentin Louboutin, "Multiscale and multidimensional modelling of musical structure using polytopic graphs", IRISA, Université de Rennes 1, France

2021, Chaudhary Ilyas, "Facial emotion recognition for citizens with traumatic brain injury for therapeutic robot interaction", Technical Faculty of IT and Design, Aalborg University, Denmark

2022, Christoffer Rasmussen, "Computer vision-based monitoring of harvest quality", Technical Faculty of IT and Design, Aalborg University, Denmark

2022, Filippo Carnovalini, "The role of structure and emotion in music for computational creativity", Departments of Information Engineering and General Psychology, Università degli Studi di Padova, Italy

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.

Full university courses developed, taught and examined, all material created:

1. "Programming mobile applications", since 2022, 5 ECTS, Medialogy BSc, Aalborg University
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3. "Algorithms, data structures and software engineering for media technology", 2017-2022, 5 ECTS, Medialogy MSc, Aalborg University
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20. "Visual Perception", 2010, 1 ECTS, Medialogy BSc, Aalborg University
21. "Multimedia technology programming", 2009-2010, 1 ECTS, Medialogy MSc, Aalborg University
22. "Software engineering and research methods", 2006-2008, 5 ECTS, Computing BSc, Goldsmiths University of London
23. "Website design, implementation and management", 2006-2008, 5 ECTS, Computing BSc, Goldsmiths University of London
24. "Music perception and cognition", 2004-2004, 5 ECTS, Music Information Technology MSc, City University London
25. "Music perception and cognition", 2003-2004, 5 ECTS, Music BMus/BSc, City University London

Individual lectures developed with teaching materials given within other courses

1. "Music perception and cognition", since 2022, 1 ECTS, Sound and Music Computing MSc, Aalborg University Copenhagen
2. "Musikhistorie og problem-baseret læring", since 2022, 2 ECTS, Music BA, Aalborg University
3. "Auralization and sonification", 2011-2011, 5 ECTS, Medialogy MSc, Aalborg University

Cooperation with external partners

I have cooperated with various external partners on many semester projects and internships, including both companies (e.g., Dynamic-IT, Logimatic, SubHub) and public sector organisations (e.g., The Royal Library in Copenhagen).

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 group-

organised project work and problem-based learning)

Type your answer here...

8. Any other information or comments.

Type your answer here...