

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.

Autumn 2014 -Assistant teacher in "Energitekniske Grundfag"(EN1, 1st semester) 5ECTS - Assistant teacher in "Numerical Methods" (TE5,MP5, IE7, IP5, TE5,EE5, MCE5, DS5, TP5 (5th and 7th semester) 5 ECTS- Co-supervisor TEPE1 (3 students) "Investigating Drag,Lift andFrequency Changes as a Result of Vortex Shedding on a CircularCylinder inCrossflow when Introducing a Tripping Rod", 15 ECTSSpring 2015 - Co-supervisor TE6 (4 students) "Fluid Flow Study of anAxial MixingImpeller", 15 ECTS - Co-supervisor TE6 (4 students) "Design af to aksialepropeller og testsaf disses indvirkning på en fluids flowmønster i enmixertank ved brug afPIV", 15 ECTS - Co-supervisor TEPE4 (1 student) "Modelling of Platesin Free Fall -Development of a Predictive Trajectory Model by an Experimentsaland NumericalApproach", 30 ECTS **Autumn 2015**- Assistant teacher in "Fundamental Energy SystemPhysics andTopology" (EN3, 3rd semester) 5 ECTS - Assistant teacher in "Thermodynamics, Heat Transferand FluidDynamics" (EN3, 3rd semester) 5 ECTS - Assistant teacher in "Numerical Methods" (MP5,IE7, IP5, TE5, EE5,MCE5, DS5, TP5, 5th and 7th) 5 ECTS - Co-supervisor TEPE7 (4 students) "Investigation ofChange of AerodynamicProperties of a Wing Section Covered by Ice", 15 ECTS

Autumn 2016

- Co-supervisor TEPE1 (5 students)"Investigation of the Flow in the Near-tongue Region of a WasteWaterPump", 15 ECTS
- Co-supervisor TEPE3 (2 students)"CFD modelling and experimental verification of erosion in a pipe bend bywater flow transported solid particles", 30 ECTS

Spring 2017

- Co-supervisor TE6 (4students)"Investigation of Flow and Clogging Inside Impeller and Housingof aCentrifugal Pump, 15 ECTS
- Co-supervisor TE6 (3students),"Undersøgelser af en spildevandspumpes tilstopningsfænomener", 15 ECTS - Co-supervisor TEPE4 (2 students), "CFD modelling and experimental verification of erosion in pump, 30 ECTS

Autumn 2019

- Assistant teacher in "Thermodynamics, heat transfer and fluid dynamics ",EN3, 5 ECTS

Spring 2020

- Teacher in "Flow Machines",TE6, 18 students, 8/11 lectures, 5 ECTS
- Co-supervisor TE6 (4 students), Topic: Modelling of Pelton turbine, 15 ECTS

Autumn 2020

- Co-supervisor TEPE1 (4 students) Topic: Large Eddy Simulations of Flow Mixing in a Square T-Junction Studying the Impact of Turbulence Intensity, 15 ECTS
- Co-supervisor TEPE1 (4 students) Topic: Fluid Mixing in a T-junction with a pulsating and a turbulent inlet modelled with CFD and validated with PIV, 15 ECTS
- Teacher in "Thermodynamics, Heat Transfer and Fluid Dynamics", EN3, 51 students, 4/12 lectures, 5ECTS
- Hjælpelærer i "Thermodynamics, Heat Transfer and Fluid Dynamics", EN3, 51 students 5/12 lectures
- Assistant teacher in "Numerical methods", (MP5, IE7, IP5, TE5, EE5, MCE5, DS5, TP5), 5 ECTS
- Co-organizer of Girls Day in Science in AAU
- Responsible for workshop on Girls Day in Science in AAU

Spring 2021

- Teacher in "Flow machines", TE6, 9 students, 8/11 lektioner, 5 ECTS
- Supervisor EN2 (6 students) Topic: Performance analyse af en vertikalakslet tidevandsturbine med roterende vingeprofiler, 15 ECTS
- Online teaching on flow around airfoils for Vesthimmerlands Gymnasium. Use of External Flow (<https://externalflow.energy.aau.dk/>)

Autumn 2021

- Teacher in "Thermodynamics, Heat Transfer and Fluid Dynamics, EN3, 43 studerende, 5/12 lectures (incl. lecture in Flow lab), 5 ECTS
- Assistant Teacher in "Energisystemers grundlæggende fysik og opbygning", EN2, 5 ECTS
- Assistant Teacher in "Numerical methods", EN5, 5 ECTS
- Co-organizer of Girls Day in Science in AAU
- Responsible for workshop on Girls Day in Science in AAU

Spring 2023

- Supervisor TE6 (4 students) Topic: Development of impeller for centrifugal pump, 15 ECTS
- Supervisor TE6 (1 student) Topic: Development of impeller for centrifugal pump, 15 ECTS

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.

Member of the Study Board of Energy since February 2021 **Fall 2021**- Semester coordinator TE5 **Spring 2023**- Semester coordinator TE6

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

Completed Courses

2014 "Basic Course in Pedagogy for University Teachers", 2 ECTS

2020-2021

"University Pedagogy for Assistant Professors", 10 ECTS

2021

"Supervisor Workshop". The course focused on the relationship between PhD student and supervisor. Total workload of 24 hours.

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.

2020- Development of teaching material for the course in Flow Machines (6. semester, 5 ECTS). The course was taught online.

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

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.

8. Any other information or comments.