

## 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.**

#### Lecturing

I have extensive lecturing experience and have planned and taught the following five courses a total of 14 times. I have taught and planned both introductory and master level courses.

Test and Verification: Graduate level course. Spring 2009, 2010, 2011, 2012, 2014, 2015

Introduction to Programming using Java: Introductory level course. Spring 2008, 2009, 2010.

C Programming: Introductory level course. Autumn 2008, 2009.

UNIX-introduction (EDB-intro): Bachelor level course. Autumn 2008, 2009.

IT-tools (IT-værktøjer): Introductory level course (HTML and Access 2003/2010): Autumn: 2010, 2011

#### Supervision

I have now been the supervisor for a total of more than 30 groups and have extensive experience in supervising both bachelor and masters groups and have supervised on the following semesters:

Sw6, Sw8, P0, Dat1, Dat2, Dat3, Dat4, SSE3, SSE4, ESS9, ESS10.

### **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.**

I have been appointed a member of the study board for the period starting February 2015.

I have been semester coordinator for three years on the Sw6 semester.

I have been a member of the teaching planning committee (UPU) since 2012.

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

I have completed the course University Teacher Education for Assistant Professors as planned in the period October 2010 to January 2012.

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

Nothing further to add here.

### **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.**

I have fostered a now five year long cooperation with Aalborg Kommune regarding the multi-project on the Sw6 semester. This provides feedback from real users for the students working on the project and ensures continuity in the multi-project.

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

I have not been nominated for any teaching awards.

### **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.**

In this section I will present my reflections on teaching in general and specifically related to my practice as an educator at Aalborg University, both past and future.

#### Lecturing

Through the course of the University Teacher Education for Assistant Professors I have given more attention to the fact that I need to find more ways of motivating the students to become more active during the lectures. My reason for wanting to activate the students is to increase their learning. This can be both through mini exercises and through discussions and reflections. During the spring semesters of 2011 when teaching the Test and Verification course for the third

time I decided to experiment with techniques in order to motivate the students to be more active during the lectures. I experimented with different forms of small group discussions in the lecture room. Overall the technique had a positive influence on the participation level of the students. After each of the buzz group discussions I summarized by asking the same questions to the whole class. I experienced more students being willing to answer because they had already formulated an answer in the small groups. By implementing a small change in the way that I teach I experienced a significant increase in the student participation.

This experience has encouraged me to improve my teaching style further in the future through small experimental changes.

#### Project supervision

I find that quality project supervision starts with writing a project proposal, which truly inspires and motivates the students. My experience is that if the students are motivated from the start they will automatically produce better results and learn more during the process.

In the spring of 2011 I proposed a multi-project for the bachelor project semester of the software engineering education. This resulted in 12 students in four groups that cooperated on developing a common software system. The system focussed on communication enabling software for autistic children. I used my local contacts in order to secure an external customer for the project groups.

I received a lot of positive feedback on the process, both from the students and the external contacts. Having an associated customer increased the relevance and realism of the projects which the students were particularly satisfied with. My external contacts invited me to give a presentation at the annual inspiration day of Autismecenter Nordjylland.

The multi-project ran again in the spring of 2012, 2013, 2014 and 2015. I have now ensured the cooperation of 5 external contacts within the area of special needs education. All of them professionals that on a daily basis work with autistic children and thus have a deep understanding of the application domain of the student projects.

When supervising students I believe that an important aspect to stress is that the students need to assume a common as well as an individual responsibility for their own learning. I emphasize the importance of knowledge sharing within the group during supervision.

As a project supervisor I am able to adjust the type of feedback that I provide to a group of students, both depending on the semester they are following and based on the current status of the project. Some project groups on the earlier semesters need as much supervision on the group cooperation and knowledge sharing as they do on the technical aspects of their project, while this becomes less important for the students in the final semesters.

## **8. Any other information or comments.**

#### Experience with exercise assistance

During my time both as a master student and PhD student I have been a teaching assistant seven times in the courses: Syntax and Semantics, Complexity and Computability, Distributed Systems, Object Oriented Analysis and Design and Java Programming.

I include exercise assistance as a separate section because I find that this is a separate discipline from lecturing. Exercise assistance has given me a lot of valuable experience with explaining complicated subject matter directly to students. This helps develop an understanding of which types of examples or presentations of theory best helps the individual students grasp the given subject matter. It has also given me a firm belief in my own ability as an educator.

I have become dedicated to creating exercises in the form of hands-on problem solving that engages the students by presenting exactly the right level of complexity. As well as using open ended questions in order to get the students to reflect about their practice and knowledge.