Meeting SAT Computer Science 11 October 2023

Present:

- Dan Witzner Hansen (HoP BSWU)
- Marco Carbone (HoP KCS)
- Therese Graversen (HoP BDS)
- Patrick Bahr (HoP KSD)
- Louise Meier Carlsen (Co-HoP BSWU)
- Theodor Christian Kier (Student rep., KCS)
- Maja Styrk Andersen (Student rep, KSD)
- Juraj Septák (Student rep., BDS)
- Bozhidara Stoyanova Pesheva (Guest, BDS)
- Ida Junker Sohrbeck (Guest, BDS)
- Cristina Avram (Guest, BDS)
- Paolo Tell (Guest, faculty)
- Trine Møller (Observer, Study and Career & Guidance)
- Marc Kellaway (Prog Coor KSD) (Minutes)

Absent:

- Lena Winther Jensen (Student rep, KSD)
- Mette Holm Smith (Observer, Prog Coor BDS/KDS)
- Allette Bjørn Bundgaard (Observer, Prog Coor SWU/KCS)
- Marius Thomsen (Student rep., BSWU)
- Luca Maria Aiello (HoP KDS)

Minutes:

1. Approval of agenda
The agenda was approved.

2. Approval of minutes from meeting September 13 2023
No comments to the minutes received within the 10 working days period. Minutes approved.

3. Preparation for visit from Thore and Riko November 1
Maja: I have taken the initiative to invite Thore and Riko for the next meeting, and would like to hear, if SAT has any input for the discussion. My main goal is to enhance coherence and wellbeing at the KSD programme with a focus on Algorithm and Data Structures, and to a lesser degree also Introduction to Database Design. While this initiative originally was mostly focused on the KSD programme, I think the discussion will be relevant for SAT as a whole, as the courses also are mandatory for the SWU and BDS programmes. My main success criteria would be that we have a fruitful, informative, and progressive dialog, though I also have a goal of enhance wellbeing by lowering the number of mandatory assignments in the Algorithm course, as well as strengthen the coherence on the second semester of KSD by evening out the workload between Algorithms and Database Systems.

Therese: This is interesting. On the BDS programme we have Algorithms the semester after Database Design.

Maja: In the beginning 13 mandatory activities are published for Algorithms, and we need to pass 10 with an 80-100% accuracy.

Dan: Do they still have the stars, so you can see the quality of the solution?

Maja: You can see how many points you get, but the system is very rigid. To compare, we have 4 mandatory activities in Database Systems, and you need to pass 3 with 5-10 points out of the 80-100 points possible. I think this creates a discrepancy in workload between the two courses, even though they are both 7,5 ECTS, with the result that students need to allocate more time for Algorithms than Database Systems. I was hoping that Algorithms perhaps could get inspiration from Database Systems in how the mandatory activities are handled.

Dan: If you look at the amount of hours you spend on a full 30 ECTS semester, the courses usually balance out, even though some might need more time than others. This is how we try to balance it out at least. How much effort do the other courses on the 2. Semester take?

Maja: The other two courses are an elective and a specialisation course, so it is difficult to say, as it may differ from course to course.

Dan: Ok, if we then look at just Algorithms and Database Systems together, how does the workload fit overall?

Maja: Like Thore has requested, the average preparation pr. week in Algorithms is 3½ day. We have to always be updated on the readings to get though with the assignments.

Marco: The idea here is to prepare what we want to discuss at the next meeting, right? You suggest to reduce the number of mandatory activities, and I know there is relation between workload and the number of activities, but think it is hard to quantify and compare between courses this way, as the size and difficulty can be different.

Dan: I do not think the numbers of mandatory activities matter. It is better to focus on the workload.

Louise: If you have 8 hours used for preparation, then there is only 3 hours left. And if the mandatory activities also require 8 hours of work, then there is something wrong. I think this is valid to look into. Another issue can be the dates for the mandatory activities, how they follow each other and perhaps clash with the mandatory activities in other courses.

Therese: I have many courses that do not require preparation for the exercises, but then the workload is on the mandatory activities. Are you expected to prepare before the exercises, as part of the workload?

Marc: I remember being mentioned by some of the student representatives in a previous meeting that a large number of mandatory activities might be a stressful factor, no matter the size. Perhaps we should hear what the student representatives think?

Theodor: I think that there are too many mandatory activities. I know some believe that it makes it easier for people to follow along, but I think it stresses people and takes away time for them to study what they need.

Juraj: Another argument would be, that you actually need to prepare for the exercises in Algorithms.

Maja: I think a lot of people choose to prepare to be able to ask good questions. The idea is that you work on things in the Study Lab sessions, and then the TA sessions is where you go through the results.

Ida: What I find stressful about the mandatory activities is not that it is every week, but the fact that you need to get most of them approved before being allowed to go to the exams.

Dan: You can always retake the mandatory activities at a later point.

Ida: It will still be a stress factor.

Therese: It can be seen as a checking point, so you can see where you are in the course.

Ida: I get it from the learning point of view, the issue is more how it is connected to being able to go to the exams.

Jura: It sounds nice in theory with the checkpoints, but I think we take something away from the students. It is our own responsibility to learn, but to do this we sometimes need the flexibility, to perhaps miss something one week and be able to catch up later. With mandatory activities every week I do not have the option to review what I need a bit later, as I have to keep following along.

Marco: But if you want to have breaks, you can delay the hand-in, right? And then you get one more week.

Juras: It depends a lot on the course and the course manager.

Dan: I think it is nice that you should have some time to catch up, but waiting until the end is also problematic. Usually, you can talk to the teacher and be allowed to submit later.

Marco: The rules should be clear because some students do not ask the teacher.

Cristina: I really liked the course, but found it difficult because it seems that the mandatory activities, exercises, and the exam trained 3 different ways to thinking. For one of the mandatory assignments, I had to go through 5 iterations because of the poor feedback from Kattis. The exercises train both theory and practice, but a different kind of practice than you get from using Kattis, so it trains a different way of thinking. The exam seemed more like logic problems, which require a different way of thinking and skillset than what was trained in the exercises and the mandatory activities. To do the course I needed to train three different ways of thinking, so I agree with all points made today – it is a very hard course that needs a lot of work.

Dan: Did you get any help?

Maja: I went to the Study Lab and had a study group – often both were needed to be prepared.

Dan: This sounds like the find-the-needle-in-the-haystack kind of assignments. You spend 4 hours looking for the needle and then 10 minutes solving the problem.

Christina: Maybe a solution would be to both be on Kattis but also submit to TAs so they could manually go over it and give us better feedback and help qualifying how close my solution is to working. Kattis is either right or wrong, but perhaps my solution would be good enough to pass, even if not perfect.

Paolo: I agree that overall way of assessment in Kattis seems harsh - there might be some good feedback to Thore here. And the TAs should actually already have access to the code submitted in Kattis.

Cristina: We never got any feedback on the code, but I know this would also be more work for the TAs. I would say there was definitely more than 8 hours of preparation, as we needed both abstract programing skills, and then also be able to use both Java and Phyton.

Therese: I agree that is an issue with the different programming languages. I have tried to raise this with the course manager previously.

Maja: There is also the point of the grades, they seem very low for the Algorithms and for the reexam.

Marc: The average grades for the two courses given in the appendix might not be so useful as information here, since not so many people take the reexams as the ordinary exam. Database Systems also runs on the 3rd semester for SWU and BDS, which skew the numbers even more for the summer exams in this course.

Juraj: How was the evaluation on Algorithms last time?

Maja: It is hard to say, as not so many students participate.

Louise: They are often not very representative.

Jura: Some of you took Algorithms last year. I heard that one of the teachers was talking about the evaluations, and said something like that people should not give bad evaluations. Did this happen?

Bozhidara: I think this was a joke. We didn't take it seriously.

Christina: I do not remember, but I think would have caught this if it happened. I do remember the teachers saying the evaluations were a serious and important thing. Maybe some people have interpreted it like that, but I really doubt it was meant that way.

Paolo: From my point of the view the grades are not as usable for our discussion as the data on the preparation.

4. Information from the Student Counselling

Trine: I have a few things that might be interesting to you. We have just launched the "Here to help" campaign to support a good study environment. There are posters up and information ITU Student. Beside this there's also some workshops for help with exam preparation and similar in the pipeline – we will send an email in October to all students regarding this, but please spread the word. We are also currently evaluating the study start. And finally, we do checks every once in a while, emailing students who have failed a course two to let them know that we are available to help with study planning or just to talk to.

Juraj: It is not possible for 1st year students to postpone courses. Do you know why?

Trine: That is to ensure that all students get a good foundation for their studies. If they have special needs, they can still apply for exemption. We also have the first year-exam on the bachelor programmes, where you need to pass 30 ECTS within the first study year, so it is also to help students not getting into trouble

with this. It might also help regarding SU to ensure students do not fall too much behind in the beginning of their study.

Therese: First year courses are usually very essential for everything that comes after.

Louise: It depends on the study programme, though.

5. Information from SAT Members

Therese: I would like to hear from the new BDS students how you are finding the new first semester on BDS, especially the new course.

Ida: We have a lecture on Monday were we will be giving feedback. I think it has been notable that the course is new. We have also been encouraged by the TAs to go to the teachers to give feedback. I'm curious how second part of course will pan out.

Therse: We know people are doing very well.

Ida: There is big difference between the two courses - you can feel that one of the teachers has been teaching a lot longer. A lot of people also experience a level of difference in difficulty between the courses.

Cristina: We can see the same thing in Study Lab. When we were on the 1st semester Linear Algebra was the scary course, but now the focus has shifted to Probability.

Therese: Do people like the material and learning probability in general?

Ida: I don't know. It seems vague, where statistics makes more immediate sense. I trust it will make sense and speak together in the end.

Therese: This would be an interesting discussion to continue. You need the math to do data science, but to structure how and when you learn different aspects is always a challenge.

Ida: I think it depends on the students ability to see the big picture and trust that it will make sense in the end.

Theodor: I have a small thing from Marius. The new students on SWU think Discreet Math is very difficult compared to the other 1st semester courses.

Louise: We had semester meeting recently where it was also mentioned. Me and Dan will talk with the course manager about this.

Dan: It is ok that courses are difficult, and mathematics has a tendency to be more frustrating, as it takes more attempts to learn it.

Louise: You also have had math for 13 years already before you start at ITU, so the math we have here is very high level compared to the programming courses, as we start more from scratch there.

Maja: When we had the Discreet Math course on KSD, everything was so well managed, that even though the course was very difficult, you felt safe. This is not really the case with Algorithms and Data Structures.

6. AOB

Juraj is leaving SAT so there is a free seat for the remainder of 2023 for the BDS programme. Bozhidara, Cristina and Ida will join as guest for BDS for now.

Louise: There is the yearly teaching prize at ITU, and as the CS programme is currently discussing who to nominate, we would like for the students in SAT to chip in. We know you haven't been through so many courses yet, but perhaps instead of persons, you could give some input of what factors to focus on.

A mail with further information on this and a deadline was sent to all student members of SAT-CS (including the guests) after the meeting.

Ida: I wanted to briefly mention my start here at the ITU to illustrate a point. As a SPS-student I was invited to come and hear about how it works at ITU before applying, and that information meeting led me to believe that studying on delayed timed was possible. After starting, though, I can see that it is not an option on the 1st year of the BDS programme after all. I can see the reasoning the behind this, but I am wondering about whether it could be communicated more clearly to potential students.

Marc: We are currently working on a model to communicate the logic and dependencies of the various programmes to make it easier to see the connections and what is possible up front – both for students and for the staff taking with the students.