

Date March 14<sup>th</sup>, 2017

## Minutes of the 117<sup>th</sup> meeting of the OLC-IT

Present: Bolding, Boschma, Hartvelt (minutes secretary), Havinga, Heerlien, Heijenk (Programme Director), Heijnen, Huisman, Kortstra (10:50), Van Grinsven

### 1. Opening and determining agenda

The meeting is opened at 10:45 A.M.

Molenkamp has announced he is not able to attend the meeting.

A new member for the committee has not been found yet.

There are no additions or changes to the agenda.

A late piece has been submitted about the new syllabus for Cyber Data Analytics, but it will be discussed next time.

### 2. Announcements by programme director

The programme director mentions:

- A survey about the mathematics course of learning has been conducted. There are some requests for changes. There have been talks with module coordinators who didn't see the need for change. In the end though, it has been decided there will be two different maths courses. Changes in the second one are mostly in the first semester, consisting of a change in scheduling between B1 and B2. There is a proposal to have Probability theory & Statistics in Q4. As it is, Probability theory is in A4, Statistics in Q6.  
We agree with the changes in the first semester. In the main maths course there is supposed to be Probability theory & Statistics in Q4, where others will join our probability theory course. But as there is no statistics, at least the name is wrong. It's not 100% clear yet but the programme director expects it to be fine in the end.  
It might be interesting to do probability theory in Q3 as it is relevant for the Q3 project. This has been suggested by the OLD, discussions are being held.
- Huisman mentions there is some uncertainty about the division of responsibilities between the module coordinators and the mathematics teachers. This should be more explicit.
- Our in-depth modules are also available for other course programs. The in-depth modules of other course programmes are now regarded as broadening minors for CS students as they are too far from our course programme. The programme director mentions we think it's relevant that students have a broad education so we want to have our students do a broadening module, even though the minor bureau doesn't enforce this anymore. Enforcing this is going to be difficult however. We are going to check whether they did a broadening minor at the bachelor exam, but an extra check could be done before the students start their design project or research project. The study tour was a problem as the minor bureau made it difficult. The study tour is an in-depth module according to the minor bureau, but we think it qualifies as a broadening minor. As the minor bureau doesn't enforce it anymore, we can call it whatever we want.
- The programme director is going to visit China next month to sign contracts and have some talks in the light of our collaboration with the NPU. They have received 5 complete scholarship grants to send 5 students here for 1 year. The students have to pay the second year themselves. In the beginning only for computer science, but in the future also EE / Maths / IST / etc. Apers will be going there a couple of weeks after the programme director to sign contracts. He will also be going to USTC to discuss a similar programme.
- The pre-subscriptions for the bachelor are going well. At this moment there is double the amount of subscriptions in comparison with last year. Across the board there are 25% more subscriptions than last year, so we're doing better than the average. We have a higher percentage of foreign students than last year. BIT is also growing, but they haven't doubled. We have to make a plan to accommodate this many students.

- We always tell prospective and new students there is no prior knowledge about programming necessary to do the computer science bachelor, but in practice people without prior knowledge have struggled. We're making a small change to the course programme to accommodate some programming education in the first week, and make sure we assume a little bit less knowledge about programming in the first quartile. There will also be a "Java Week" in week 8/9 of Q1 to help those students for Q2.
- There is a discussion about whether Python is the best start for people without programming knowledge. Huisman mentions she has also taught Python in the first year of a high school, and they were able to understand it. This shouldn't be a problem for our students, so starting at Python should be fine. Huisman and Heijnen are going to check whether there is a correlation between the grades for Q2 and the algorithmic pearl in Q1. We don't want to exclude people who should be able to finish the course programme, but we want to exclude those who aren't able to. Therefore the adjustments made to the programming part of the curriculum should not make it too easy.

### **3. Incoming/outgoing correspondence**

The faculty council wants to change the way to elect a programme committee. Huisman mentions it's relevant there is a good mix between backgrounds of the students and employees in the programme committee (study program mostly), which is missing in this piece from the faculty council. The programme director mentions in this new way to form the programme committee you would lose all 4 students each year and all employees every two years, which would pose a threat to the continuity of the committee, which is done well at the moment. There are pilots at EE, Maths and Atlas with elections for the programme committee. We as a programme committee don't have any influence on this, so this piece is just as information.

We're going to send a representative to the Faculty Council + others meeting to share our views on the formation of a new programme committee and possible push them in our direction. Havinga will try to attend or ensure someone else from the programme committee attends if he is not able to.

Our results in the Master keuzegids are not very positive. The scores are based on the NSE results (75%) and a visitation (25%). Apparently the lecturers were reviewed negatively. The programme director has done some research, this conclusion was based on some questions from the NSE. The average at the NSE about those questions was 3.9/5, while the CS master scored a 3.8/5. The delta was 0.12, and as we are just below average we scored negatively.

The keuzegids is only available in Dutch, which might be good for us, as foreign students can then not base their choice on this master guide. The programme director doesn't expect it to have much influence on the amount of people enlisting for the master. Everybody is unhappy about the bad science conducted by the keuzegids, as very strong, unreasonable conclusions are drawn from the data.

Van Grinsven is going to address this issue at the communication bureau.

### **4. Minutes and Actions of the 116<sup>th</sup> OLC-IT meeting d.d. December 20<sup>th</sup>, 2016**

There are some remarks about the previous minutes, which will be updated accordingly. On a whole, some people think the minutes are a little bit too elaborate, but the people who weren't able to attend the previous meeting felt it was good to be able to read about the discussion and not just the conclusion.

Actions:

- 238: Availability of internship reports: These are being saved, but are not publicly available. For each of them it is known whether they are confidential, if they aren't they can be requested.
- 243: Integration of mathematics in module 5: Action is done, will be monitored.
- 254: Actions of the secretary: This action is done.

- 259: Combination of PC's & new member: Combination would not be a good idea, but the search for a new member continues.
- 260: Motivate students to fill in the NSE: Inter-Actief has used all available channels, 33-34% filled it in, which is less than the national average but still better than usual.
- 261: Remind students to fill in the NSE: Done
- 262: More restrictive master course programme: Action has been done, discussed under point 8.
- 263: One-time course by Fehnker: Arrangements have been made, action is done.
- 264: Solution for the premaster/bridge minor problem: Not yet done.

## **5. Change learning objectives module 4 Data & Information**

The changes suggested by Sikkel are approved. This means that there is now team skills in Q4, removing ethics, which already had a lot of overlap. Furthermore, some learning goals have been adjusted so the tools used are more up-to-date.

## **6. Cum Laude**

At this moment, too many Cum Laudes are awarded in the CS master, so we need to make the guidelines a little bit stricter. The TU/Eindhoven and TU Delft have the restriction of at least a 9 for the final project, which is something we could do.

If we did this 5 years ago, our past results would have been much closer to the 10% norm.

There is a discussion about possibly requiring the students to attain all grades without resits to be awarded cum laude. The programme Director doesn't think this is necessary, but his colleagues wanted this. The rest of the programme committee agrees this shouldn't be a restriction.

Then there is a discussion about the 30 month restriction. The 30 months start at the moment of enrolment in the master programme, which can be an issue with board years, internships or even vacations. However, exceptions to this restriction can be made by the exam committee in such cases. The restriction of a maximum of one grade lower than a 7 has been removed starting this year.

Everyone agrees we should have the same restrictions as the other technical universities in the 3TU collaboration. The programme director will discuss this with the appropriate people.

The requirement for having no exemptions is due to students doing half of their master programme at another university. We cannot ensure these grades are up to our standards. This does not happen a lot so is not an issue. If students have exemptions because of other reasons, such as double degree masters, the exam committee can once again make an exception.

## **7. Evaluation Report**

Evaluation reports not shared as is due to anonymity, so the results have been put into tables.

The programme director mentions that module 6 has been evaluated on a 10-point scale, not on a 5-point scale, so the module has been evaluated as poor. Heerlien is working on a piece to improve the module, which will be discussed at the next programme committee meeting.

Not many students filled in the enquiry, so conclusions are difficult. There is nothing shocking apart from the results about module 6.

## **8. Master Rationalisation**

The programme director mentions he wants a common structure between the specialisations, of which there also should be fewer. The common structure would also help at visitations. There will be some reorganisations within the faculty, where some people will not have a follow-up.

The programme director has discussed these objectives (clear profile, common structure, limited teaching load, aligned with research) and a first concept of the specialisations with the people responsible for the specialisations. These are the defining principles he has drafted:

- All programs have a core of mandatory courses
- All programs have a set of advanced courses
- These courses together form a set of 10 CS courses, defining the elective.
- Each student should do at least 8 of these 10 courses
- Each student should do the course Computer Ethics
- Each student should broaden his program by choosing a course from the theme Organize, Research and Design. (OOO, Organiseren, Onderzoek en Ontwerp)
- Each student should do the research topics course and a final project
- Each student has 30 credits for a profiling program, related to the specialisation, as follows:
  - Exchange program
  - Traineeship (20EC)
  - Industrial Software Engineering Project (Software Technology master, 10EC)
  - Participate in the study tour (10EC)
  - Do further specialisation electives
  - Do courses from another CS specialisation)
  - Do courses from a different Master
  - Do courses at one of our 4TU partner programs
  - Do courses from a different master for a double / combined program
  - Do a set of courses in the area of people.processes.economics etc. that are relevant to the program
  - Do homologation courses, to compensate for lacking knowledge (max 20EC)
- A specialisation may put additional requirements on this profiling program

10 courses per specialisation would mean the amount of total courses across the master programs would be reduced to somewhere between 50 and 60, down from the current 85. This would be better in line with the required workload. The programme director has discussed this with the lecturers to draft up a curriculum.

Havinga asks whether we want to allow students to do only courses in the profiling program, as he wants to have students perform projects. Perhaps a minimum of 10EC of projects. The programme director doesn't want to rule out the option of doing 30EC of exchange however, for instance. Within Software Technology, the engineering project will become a choice, as students could also focus on research within this part of their master. The programme director doesn't feel the need for a requirement of 10EC of projects within the profiling program, but have students confirm their profiling program with the programme mentor, who should agree with the program.

## **9. Master Courses**

### **Software Science**

Iris poses the question why there are 4 mini-courses within the same course (Software Science). There are two instances of the course as students who think it's particularly interesting can do it twice, following all four topics. This approach is similar to the Data Science course. It is not done to comply with the constraint of 10 courses, this is actually seen as the best solution. There are some administrative issues with the grades if the course is split up into two like this, but there are workarounds possible.

As the topics can be changed every year, it is possible this course has to be discussed at the programme committee meeting every year. There is no plan to change the topics every year, but if they aren't relevant anymore, they want the freedom to change the topics. A discussion about the prerequisite knowledge is held, this should be made clear before the course starts.

### **Security Verification**

Security verification was a new course last year. In hindsight Huisman and her colleagues weren't happy with the assignment as due to the struggles the students had, the formal knowledge wasn't properly tested within the assignment. The proposal is to have the System Validation course as prerequisite knowledge to alleviate this problem. The course is an individual project, so no lectures, and it is offered each quartile.

## **Systems Security**

There are too many topics at the moment, especially in week 1. This should be reduced to a shorter list. The consensus is that the course is not completely finished yet, and there is some work left to be done on the organisation of this course. The main question is whether this course is doable, as there might be too many topics and too many papers to read. The chairman is going to send an e-mail to Hartel to discuss these possible pain points.

## **10. Composition of working groups PC-IT**

After a brief discussion, the conclusion is these working groups are not up to date, so a new division should be made. There is input from Kokkeler in the curriculum working group. Van de Zande left this working group and will be replaced by Boschma and Sperotto. Hiemstra will leave the TER/Quality control working group. The chairman of the OLC is going to ask Molenkamp to become chairman of this working group. Furthermore, Bolding will take place in the working group.

## **11. Any other business**

There is no other business.

## **12. Questions and conclusion**

Heerlien mentions there has been a change of functions within the board of *Inter-Actief*. As the former officer of educational affairs has got a new function, Heerlien herself is now also the officer of educational affairs.

Heijnen mentions some students assistants will have Skype meetings with prospective students to talk to them about the course programme and the university. This will be especially helpful for international students, as they are often unable to attend an open day. She has a meeting about this on March 16<sup>th</sup>, after which the Skype meetings will be planned.

The meeting is concluded at 12:38 P.M.

## **Actions:**

#	Meeting	Action	Person	Deadline
179	March 2015	Biannual overview of study and evaluation results	Heijnen	September / March
259	December 2016	Contact Sperotto to join the OLC-IT	Chairman	January 2017
264	December 2016	Find a solution for the premaster/bridge minor problem	Programme director	January 2017
265	March 2017	Check whether there is a correlation between the grades for Q2 and the algorithmic pearl in Q1	Huisman & Heijnen	April 2017
266	March 2017	Attend the FR+ meeting or get someone else to do it	Chairman	April 2017
267	March 2017	Discuss the Master Keuzegids practices with communication	van Grinsven	April 2017
268	March 2017	Discuss the 3TU Cum Laude norm with the appropriate people	Programme director	April 2017
269	March 2017	Discuss the possible pain points about the Systems Security course with Pieter Hartel	Chairman	April 2017
270	March 2017	Ask Molenkamp to become chairman of the TER/Quality control working group	Chairman	April 2017