FACULTY OF ELECTRICAL ENGINEERING, MATHEMATICS AND COMPUTER SCIENCE

DATE 24 April 2018 OUR REFERENCE EWI17/BOZ/6999/LvdP

Minutes 145th PC-AM (OLC-TW)-meeting Tuesday 13 March 2018, 15:45 hrs.

5 present: Hil Meijer (chairman), Peter Dickinson, Gjerrit Meinsma, Jasper Goseling (replaces Judith Timmer), Dieuwertje Alblas, Femke Boelens, Douwe Hut, Lotte Weedage (until 17:05 hrs.), Mariya Karlashchuk (educational officer Abacus, until 17:05 hrs.), Jan Willem Polderman (PD), Yael Veenstra-Konzizky (B-coordinator) and Lennard van der Putten (writing minutes)

10 absent with notice: Judith Timmer, Marloes van Grinsven (M-coordinator)

1. Opening

The chairman opens the meeting at 15:45 hrs.

Judith Timmer is ill, so Jasper Goseling will replace her today.

15 The chairman says that we should strive to have all documents for the PC-meetings in English. For example, the letter of the Faculty Council in agenda item 10 is still in Dutch.

2. Minutes 144th meeting 23 January 2018

- Textual corrections:

p. 2, I. 59: "Mastermath" should be replaced by "LNMB".

p. 2, I. 100-102: These sentences will be reformulated to "...failed the first module and that the results of Math β 1 were unsatisfactory and asks the PD if he knows what this may have caused. The PD says that the results of the Linear Structures exam were quite good, while Math β 1...". The minutes are approved with the above textual corrections.

25 - In response to the points raised in the minutes:

- Actions:

262, 263, 267, 272: done, to be removed from the list.

273: The PD and the M-coordinator have discussed with students about the current situation concerning the imbalance of the study load in some master specialisations. The conclusion was

30 that in particular the place in the schedule of the courses Optimal Control and Nonlinear Dynamics is the problem, while the solution of the problem is less trivial. There is work in progress to construct a better programme and if there is a solution, then it will be implemented right away. Action can be removed from the list.

274: Hut searched for students to join the brainstorming group for the Mastermath ELO, but nobody was interested. Action can be removed from the list, the chairman will send an e-mail to Mastermath about this. **[action Chairman]**

- Advices and correspondence:

3. Announcements

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Karlashchuk and Weedage say that they need to leave around 17:00 hrs.

The PD mentions that the master curriculum AM has been top rated in the "Keuzegids Hoger Onderwijs". The PD announces that there are currently 41 pre-registrations, while there were 25 around the same time last year. This increase is partly due to registrations from outside Europe, who often do not show up eventually.

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4. New course Spatial Statistics

Goseling mentions that this is partially a former Mastermath course. The student members of the PC say that the course seems interesting. Meinsma notices that the amount of course material seems minimal, but that does not have to be a problem. The chairman notices that the lectures are obligatory and wonders if that is necessary. The learning goals are formulated but hidden in the text. It would be better if they were formulated explicitly and in an active way. In the description of the entry requirements is mentioned "maturity in probability and statistics", while the PC would like to see that reformulated. The chairman suggests "advanced knowledge", while Goseling thinks that

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the teacher means "basic knowledge". The teacher will be asked to reformulate this. The chairman will write a positive advice with the above suggested corrections. **[action Chairman]**

5. Set up mastertrack Data Science

The PD clarifies that this will be a third specialisation, next to OR and SACS. The faculty will propagate that students can study Data Science at the UT with sub-specialisations at AM, CS and EE. The question to the PC is how they feel about this new specialisation.

- Hut mentions that he thinks there is a certain need for this new track and that students would like this new specialisation. Weedage thinks it is nice that it can be combined with a final project at OR or SACS. Also the cooperation with CS and EE is nice. Goseling says that this new mastertrack enables programmes with more aspects of Computer Science in it and it gives more flexibility in
- constructing study programmes. Also we do not need many new courses in order to set up this new track. Meinsma asks if the courses are interesting enough for AM-students. Goseling answers that the courses in the Data Science-track of CS aren't interesting for them. Therefore, the new Data Science-track for AM is being set up. Weedage worries that the level of programming will be too high for AM-students. Goseling mentions that there will be more serious programming compared to the other mastertracks, but the entry level of the average AM-student will be sufficient to do the Data Science-track.

The chairman notices that Nelly Litvak is mentioned as chair of the new graduation committee on page 2 of the document, but he thinks we should be careful in naming persons in these documents. This will be adapted. Also, the reference to "AM-DS.3" on page 3 will be changed to "AM-DS.2". On

- 75 page 6 will be added that the Complex Network course is in quartile 1A and the Machine Learning course is in 1B. Weedage says that she would like to see some example graduation projects, so that students know what they could expect. Goseling says that this will be a challenge until some students have actually completed this track, but he will make an effort for it. - Complex Networks
- The PD mentions that this course is derived from a previous Mastermath course. The chairman says that the course description and the learning goals are fine, but that the final learning goal is a bit vague. The teacher will be asked to revise this learning goal. Furthermore, the PC would like to see the word "optional" replaced by "recommended". Also, it is not clear when students have a solid knowledge of probability theory, so this should be explained in more detail. The chairman will mention the above editorial suggestions in the advice.
 - Deep Learning

Meinsma mentions that in the prerequisites it is not clear when students have a solid background. The chairman would like to see the course description and the learning goals reformulated, since they are quite unclear. The PD wonders if topic 5 is suitable for both AM- and CS-students.

- 90 Goseling thinks that the teacher needs to make choices, since the level of the students is probably being overestimated. It has to be checked whether the level of the students is sufficient for the course. The teacher will be asked to address these issues in a new description.
- The chairman will write a positive advice on the new mastertrack and its new courses, with the above mentioned suggestions and the request to see the new course description of the Deep Learning course again. **[action Chairman]**

6. Quality agenda Ministry of Education, Culture and Science (OCW)

The PD clarifies that this is about the change of the base scholarship ("basisbeurs") and that the money that is being released due to this change would flow back in favour of the students. The question to the PC (in particular to the student-members) is where the improvement should go. There are six points mentioned in the document, which points should get the highest priority? The PD says that Study Success is difficult to improve, since the programme could not do much about it. Weedage says about Teacher Quality that the evaluations on teachers are already quite positive, but that the English language skills could always be improved. On the point "Educational Facilities", Alblas asks if this also covers study facilities, since these could always be improved. The PD asks the student-members if they could consult their fellow students to discuss what needs to be improved and collect the answer within a week.

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110 **7. Evaluations**

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- Module 1 2017-2018:

Alblas notices that there are remarks about solution manuals being incorrect occasionally. It should be stressed to the students that the usage of these solution manuals is at the student's own risk and it is not the UT's responsibility.

115 - Module 2 2017-2018:

Alblas says that the second evaluation is not very representative, since she has heard other opinions of the students. The chairman notices that the restructuring of Math β 2 has not passed the PC.

- Module 3 2017-2018:

Alblas mentions that it is nice that the group compositions has been taken care of. - *Module 5 2017-2018:*

Alblas says that the module team doesn't see that the reader is chaotic, while the students do. The PD mentions that the team did not find the remarks very constructive. However, the reader needs to be revised and students are willing to help with that, for example by test-reading the reader. The chairman will write an advice on revising the reader of Mathematical Statistics. **[action Chairman]** - *Module 6 2017-2018:*

8. Change of name bachelor programme

The chairman asks why this specific date has been chosen. The PD says that this date has been chosen since the first students of the English programme are expected to graduate just after 1 February 2019. The chairman will write a positive advice. **[action Chairman]**

9. Change in curriculum B-AM, module 1-5

The PD explains that this curriculum change is proposed since we used to share module 4 with
Applied Physics (TN), but last year TN decided to move the contents of module 4 to module 3. The current situation is temporary, so the PD has formed a curriculum committee to come up with a permanent solution. The connection between Vector Calculus and E&M is desirable, just as having the content of modules 2 and 3 consecutively. Math A has been interwoven with Math β1 and β2. Reflection has moved to module 5. Prooflab is currently given four afternoons in module 2, while in

- 140 the new situation this will be given two afternoons in module 1 and two afternoon in module 2. Mathematica will be concentrated in module 3. Goseling mentions that Probability Theory is being moved to module 4 and therefore the staff load of the Probability and Statistics staff in the fourth quartile becomes very high. The PD says that we have the capacity as the department to do this. Moreover, there are no new tasks, but the existing ones are shuffled.
- 145 The chairman mentions that there will be slight changes in the Osiris descriptions of some courses due to the changes. The PD suggests to discuss the new texts during the next meeting, when also the TER will be discussed.

Since the potential staff load is a serious concern of SOR, there will be a vote on whether the PC should give a positive advice. With 7 people in favour of giving a positive advice and 1 person against giving a positive advice, the chairman will write a positive advice on the curriculum changes.

against giving a positive advice, the chairman will write a positive advice on the curriculum changes with the request to receive the new course descriptions in full detail. **[action Chairman]**

10. Poll satisfaction English language level on behalf of FC-EEMCS (FR-EWI)

The level of the English language taught at the VWO (pre-university secondary education) is sufficient to follow the AM-programme. Moreover, there are only few non-Dutch students. Therefore, the problem sketched in the letter does not apply to AM. The chairman will reply that the problem does not apply to AM. **[action Chairman]**

11. Mastermath: call for advisory group Electronic Learning Environment

Hut mentions that he could not find any student willing to join the brainstorming group, even from those that complained. The chairman will inform Mastermath about this.

12. Training implementation "Wet versterking bestuurskracht"

In the previous meeting the PC decided to not change anything about the way we work. The PD says that the role of the PC has changed, e.g. when there needs to be decided about the TER. The chairman mentions that last time's conclusion was that we should be aware about the new role of

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the PC.

13. Any other business

170 There are no other points brought up by the meeting attendees.

14. Questions

There are no questions.

175 **15. Closure**

The meeting closes at 17:25 hrs.

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Actio	Actions				
Nr	Description	Meeting	Responsible		
275	Send an e-mail to Mastermath about the lack of students wanting to join the brainstorming group of the ELO of Mastermath	13/3/2018	Chairman		
276	Write a positive advice on the new Spatial Statistics course with the textual remark that the learning goals should be formulated in the active form	13/3/2018	Chairman		
277	Write a positive advice on the new Data Science track and the associated new courses Complex Networks and Deep Learning, with some editorial suggestions on the description of Complex Networks and the request to revise the course description of Deep Learning and pass it through the PC again	13/3/2018	Chairman		
278	Write a positive advice on the curriculum change of the first five module of the bachelor AM with the request to pass the new course descriptions of the adapted courses through the PC	13/3/2018	Chairman		
279	Write a positive advice on the name change of the bachelor programme	13/3/2018	Chairman		
280	Write an advice on revising the reader of Mathematical Statistics, with the remark that students are willing to help with that (e.g. by test-reading the reader)	13/3/2018	Chairman		
281	Reply to the FC-EEMCS that the English language skills at AM are sufficient	13/3/2018	Chairman		

180 Advices and correspondence

Nr	Description
126	CROHO registration B-AM
127	New M1-M5 curriculum B-AM
128	Statistics Reader
129	Data Science track

Points of attention

Nr	Description