## UNIVERSITEIT TWENTE.

## FACULTY OF ELECTRICAL ENGINEERING, MATHEMATICS AND COMPUTER SCIENCE

DATE
20 Novenber 2018
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> Minutes
> 149 th PC-AM (OLC-TW)-meeting Tuesday 2 October 2018, 15:45 hrs.
present:

1. Opening

The chairman opens the meeting at 15:48 hrs and welcomes in particular the new members of the PC, Manthey and Ten Klooster, and the new attendee on behalf of Abacus, Sleurink.
The M-coordinator announces that this will be her last PC meeting and that Jan Schut will take over her position as M-coordinator.
The chairman says that agenda items 11 and 12 (course descriptions AQM and SMiPL) will be moved to the next meeting as the documents were available too late, so not everyone had the chance to read them. Manthey mentions that he does not have access to the PC folder. The chairman will make sure that he will.
2. Minutes $148^{\text {th }}$ meeting 19 June 2018

- Textual corrections:
p. 1, I. 50: Meinsma says that "terrible" is too strongly formulated and should be replaced by "not ideal".
p. 3, I. 153: Alblas mentions that there is a conclusion missing on the exam of PDE. Van der Putten will check the recording and add the conclusion.
The minutes are approved with the above textual corrections.
- In response to the points raised in the minutes:
p. 1, I. 20: In the minutes of the $147^{\text {th }}$ meeting, there was a remark missing on the descriptions of the changed modules 1 to 4 , which has been added now. Since the module descriptions have been added to the documents of this meeting, the minutes of the $147^{\text {th }}$ meeting are approved with the above addition.
- Actions:

291: The correct table is included in the documents of the meeting and implemented in the TER. Done, to be removed from the list.
292, 293, 295, 296, 299: Done, to be removed from the list.
294: The PC has received the course descriptions and these will be discussed in the next meeting. Done, to be removed from the list.
297: The chairman has talked to the teacher of the Deep Learning course and he was still not sure whether the exam will be written or oral. The PC expects to receive an evaluation of the course in March. Done, to be removed from the list.
298: The PD asks if it still concerns a pilot, as he considers it now an established format. The chairman disagrees, since it started as a pilot, but is not yet implemented properly into the TER. Done, to be removed from the list.
300: Timmer will try to plan a meeting with the module coordinator, but due to the fact that it was not possible to make an appointment before he went abroad, the meeting will probably take place in December. The chairman and Meinsma mention that this could also be discussed via Skype or email, since December is quite late. Timmer will look at the options. Action remains on the list. 301: The PD has asked the coordinator of module 8 about the expensive book by Winston and the language issue with IEM. The module coordinator discussed the language issue with the concerned teachers and this probably will not be an issue this year, since IEM is now also an English study.
The question on the book still stands. Weedage says that there is a rule that copies of a book may

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be used if only a small part of a book is being used. Meinsma confirms this and notes that this is indeed a nationwide copyright rule. The chairman suggests to replace this action point by an action point to inform the coordinator of module 8 about this rule and discuss whether that is an appropriate alternative for the expensive book of Stochastic Models [action PD]. To be removed from the list.
302: The chairman says that this should not be a problem this year, since the exam of last year can be published for practice. Done, to be removed from the list.
303: Timmer came up with a solution for the unsupervised self-study hours for the bachelor assignment. Initially the hours will be scheduled and during the first class will be asked to the present students whether they want to use these hours. If not, the hours will be removed from the schedule. Done, to be removed from the list.
304: Action remains on the list.

## 3. Advices/correspondence

There are no remarks on the advices.

## 4. Announcements

As already mentioned, Jan Schut will be the new M-coordinator. Furthermore, the PD announces that there are 61 first-year students, of which there are 9 double degree AM/APh students and 11 double degree AM/TCS students. The M-coordinator adds that there are 14 international first-year students, of which 9 students come from outside the EU.

## 5. Revised curriculum bachelor double programme AM with APh

The chairman mentions that he was visited by Brigitte Tel and that APh wants to have some courses (e.g. on Hilbert spaces) in the second year, while AM has these courses in the first year. The curriculum has been revised such that Optics moved to year 3 and Quantum Mechanics is in year 2, since this needs to be done early in the curriculum. As a result, students can do a proper minor in quartile 10, since the Dynamical Systems module is no longer in year 3. The PD notices that there is room for 10 EC elective courses in quartile 10. Weedage adds that, if the minor allows, the student can do two courses of the minor.
6. Error in TER B-AM 2018 double programme AM with TCS

The PD clarifies that there has been a typo in the TER concerning the project that was originally scheduled in module 3, but has been moved to module 4. The PD has consulted the PC's of both AM and TCS, as well as the Faculty Council. The PC accepts the changes in the TER.
7. New course descriptions Modules 1-4 (moved on from meeting 19 June)

The chairman suggests to make general remarks on the course descriptions. Weedage asks if the m-numbers of staff members are allowed to be published in these documents due to the new privacy regulations. The chairman says that the head of the Data Protection team said that m numbers are not considered to be private information.

- Module 1 (Structures and Models):

Meinsma mentions that Dutch and English terms are used interchangeably. Furthermore, he notices that unsupervised self-study classes are mandatory, which should not be the case. The chairman will make a general remark in the advices that attendance should not be mandatory unless it is absolutely necessary.
The chairman finds the fourth and fifth learning goal too vague and not specific enough. The term "work with" should be rephrased. He suggests to split some learning goals per course. Weedage says that she understands that the learning goals should not be too specific.
The third learning goal should be rephrased. The learning goal should be to solve a differential equation rather than to formulate it. Weedage adds that "using complex numbers" is too specific, since also other techniques are being used.
The PD says that in the first learning goal, "understand" should be rephrased, since it is too general.
The chairman suggests to move working with LaTeX in the tenth learning goal to the content description, since it is too specific and cannot be checked properly. Also the twelfth learning goal cannot be checked, so this also needs to move to the content description.

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Boelens wonders why Math level A is required, since that is confusing due to different international standards with similar names. The chairman says this needs to be rephrased.
The chairman asks if there should be one advice on all module 1 to 4 or that there need to be four separate advices. The PD requests to have separate advices per module. The chairman will write a positive advice on the description of module 1 regarding the above remarks. [action Chairman] Meinsma wonders why Test 4 on international communication is rewarded 0 credits, since it is an obligatory part. His suggestion is to move $0,5 \mathrm{EC}$ from the programming part, which is slightly overvalued, to the international communication part. Meinsma will write an e-mail to the PC explaining why this is a reasonable choice. [action Meinsma]

- Module 2 (Mathematical Proof Techniques):

Meinsma thinks that learning goal 1 needs to be rephrased. The chairman asks regarding learning goal 12 if students also should be able to implement optimisation problems as linear programs, since explaining them is a different skill than implementing. Probably they do, but this needs to be double-checked. Timmer adds that this is more related to learning goal 10.
The chairman asks if it is necessary to specify the group of 2-4 students in learning goal 16. The PD suggests to rephrase this to "can work in small groups" to generalise it slightly.
The PD suggests to rephrase "find mistakes" in learning goal 15, since a proof that contains mistakes is not a proof.
The chairman finds the content description too sketchy. Furthermore, the Dutch course names are still mentioned in it. The chairman will ask for a proper content description and will write an advice on the description of module 2 regarding the mentioned remarks. [action Chairman]

- Module 3 (Fields and Electromagnetism):

Meinsma asks why the lectures are mandatory. The PC thinks that this should not be the case and that attendance duty should only be mandatory if this is absolutely necessary. The chairman will mention this as a general remark in the advices.
The PD mentions that "will be able" in the first sentence of the learning goals should be replaced by "is able".
The chairman says that in the Calculus part of the learning goals the conservative vector fields topic is not mentioned, while it is an important part of the course. Weedage asks if "Calculus" should be changed into "Vector Calculus", since this is the new name of the course. The chairman says that this is indeed the case and this will be straightened out. The chairman will write a positive advice on the description of module 3 regarding the mentioned remarks. [action Chairman]

- Module 4 (Signals and Uncertainty):

Weedage asks if B-APh students also participate in this module, since this is mentioned in the list of participating studies. The chairman clarifies that only the double degree AM/APh students participate.
Meinsma notices that the description says that the module is taught in block 2A instead of 2B. The chairman says that this will be changed.
The chairman mentions that the content description is too short and should be elaborated on. Weedage adds that the content description should be well descriptive, especially for minor students, since otherwise they do not know what to expect and therefore will not choose the module. It should describe in layman's terms what will be done in the module. The PC would like to see an updated version of the content description. The chairman will write a positive advice on the description of module 4 regarding the mentioned remarks. [action Chairman]
8. Points of improvement Modules 11 and 12

Weedage and Alblas mention that these points of improvement have been discussed during the panel meetings. The PC is happy with the received response.
9. Using LaTeX template in Modules 11 and 12

Timmer clarifies that the LaTeX format will be used starting this fall. Meinsma has made the template, so any comments on the template can be addressed to him.

## 10. Reaction Kathrin Smetana on advice on Scientific Computing (135)

The chairman says that the course description has been updated according to advice 135, and that Kathrin Smetana has commented on the new version of the course description. The PC is happy

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with these comments.

## 11. New course description Applied Queueing Models

This item will be moved on to the next meeting.
12. New course description Stochastic Models in Production and Logistics

This item will be moved on to the next meeting.

## 13. Mastermath meeting on 12 October 2018

Weedage will attend the Mastermath meeting on 12 October.
Timmer notices that students think the exam of Queueing Theory was too difficult. The chairman thinks that this is partially because it was taught by only one teacher this year. Next year the course will be taught by two teachers, so a teacher will always have feedback from the other colleague. The chairman will write this in the response form to Mastermath. The chairman notices that there is no reaction of the teacher of Applied Finite Elements. Manthey mentions that he also taught a Mastermath course during the spring, but the evaluation of this course is not contained in the documents. The chairman clarifies that this is due to the fact that no UT students followed the course or the score was so high it would not be discussed anyway and therefore it has been filtered out of the documents.

## 14. Evaluations

- Module 3 2017-2018 SEQ evaluation:

The chairman says that the main comment of the students is that the work schedule was not clear. Also he wonders why at question 3.5 ("In the module I was given the opportunity to decide what to learn") the response is quite negative compared to other modules. The PD remarks that the module is fully programmed. The chairman suggests that the projects of all modules need to be reviewed, since in this case the module is guided in a specific direction. Manthey says that if the students are not given any freedom in the project, then maybe there should be done something about it. Ten Klooster mentions that students do not really mind, since they just answer the questions in the project and do what is told them to do. Sleurink adds that the response could be negative because there is no choice in the project and all students do exactly the same. The chairman suggests to write an advice to let module teams review the projects together with people from CELT to see whether and how students can be given more freedom on how they handle the projects. [action Chairman]

- Module 4 2017-2018 panel discussion 2:

The chairman notices that in the Electromagnetism course only the latest grade counted rather than the highest grade. This contradicts with article 3.4 of the TER. This will be added in the advice on module 3.
Meinsma thinks it is strange that handing in assignments was not necessary since there were no consequences. Ten Klooster clarifies that there was no grading and no checking list.

- Module 4 2017-2018 SEQ profile:
- Module 5 2018-2019 panel discussion 1:

Weedage finds it good to see that the reader has been improved. The chairman asks Ten Klooster if she could collect suggestions from students on the reader at the end of the quartile, so the teacher can improve the reader even more. Ten Klooster will do this. She says that there are currently two lecturers teaching the Statistics course and that students do not like the lectures of one teacher who scrolls down a Word-document. Therefore, a lot of students do not attend these lectures.

- Module 7 2017-2018 SEQ evaluation:

Meinsma notices that some students missed some knowledge of Python for the module. Sleurink says that the assignments on Python were good, but some students need more practice than others.

- SEQ signaalwaarden quartile 2B 2017-2018:

The chairman notices that module 8 scores really bad by the AM-students, compared to CE and IEM and wonders why this is. Boelens says the module was worth more than the 5.0 that it got. The chairman says that we need to have the actual SEQ-evaluation of the module. The B-coordinator will ask the coordinator of module 8 for the SEQ-evaluation and a reaction on the particularly low

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appreciation by the AM-students, compared to CE and IEM. [action B-coordinator]

## 15. Any other business

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

There are no questions.

## 17. Closure

The meeting closes at 17:26 hrs.

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| Nr | Description | Meeting | Responsible |
| :---: | :---: | :---: | :---: |
| 300 | Inquire if it is feasible to move the Collaboration classes to (the new) module 3 | 19/6/2018 | Timmer + Bcoordinator |
| 304 | Inquire why the class on writing a scientific article for the bachelor assignment has been cancelled | 19/6/2018 | B-coordinator |
| 305 | Inform the coordinator of module 8 about the rules on publishing copies of book segments if only a small part of a book is being used and discuss whether that is an appropriate alternative for the expensive book of Stochastic Models | 2/10/2018 | PD |
| 306 | Write a positive advice on the description of module 1 with the suggestion to move learning goals 10 and 12 to the content description and to sharpen the formulation of learning goals 3, 4 and 5 | 2/10/2018 | Chairman |
| 307 | Send an e-mail to the PC with the suggestion to move 0,5 EC in module 1 from the programming part to the international communication part with the underlying reasoning | 2/10/2018 | Meinsma |
| 308 | Write a positive advice on the description of module 2 with the suggestion to rephrase learning goals 1 and 12 and add a proper content description, since the current version is too sketchy | 2/10/2018 | Chairman |
| 309 | Write a positive advice on the description of module 3 with the remark that conservative vector fields should be contained in the description. Furthermore, article 3.4 of the TER forbids to only count the latest grade instead of the highest grade | 2/10/2018 | Chairman |
| 310 | Write a positive advice on the description of module 4 with the suggestion to elaborate on the content description | 2/10/2018 | Chairman |
| 311 | Write an advice to let module teams review the projects together with people from CELT in order to give students more freedom on how they handle the projects | 2/10/2018 | Chairman |
| 312 | Ask the coordinator of module 8 for the SEQ-evaluation and a reaction on the particularly low appreciation by the AMstudents, compared to CE and IEM | 2/10/2018 | B-coordinator |

Advices and correspondence

| Nr | Description |
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Points of attention

| Nr | Description |
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