

Minutes 180th PC-AM-meeting
Tuesday 17 January 2023
15:45 – 17:45 hr. Ravelijn 3411

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Present: H.G.E. Meijer(chairman), A.A. Stoorvogel(PD), J.B. Timmer(B-coordinator), J.P. Boon,
K. Proksch, S.J. Geerts, L.S. Lanting, N. Luijten, F. Schuller, J. Schut(M-coordinator), E.
van der Veer, N.F. Berg (Abacus)

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Absent with notice: B. Manthey

1. Opening

The chairman opens the meeting at 15.53.

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Two items are not on the agenda; the Statistics and Probability course evaluation and the proposed changes to module 8. If there is time left, it will be dealt with in this meeting. Geerts and Lanting have a discussion point regarding the double degree programme of Mathematics and Physics. This will be dealt with later.

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2. Minutes 179th meeting 15 November 2022

Page 2 Line 48: Remove all first names.

Page 4 Line 155: The part that is taken over is *How to write a scientific paper*, not Reflection.

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Page 5 Line 210: the B-coordinator has seen the draft of the EER, and the rule remains as if (passing stays a 5.50). Add this remark.

With these changes, the minutes are adopted.

Action points:

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- 436 – *Remains on the list*

The PD wanted to wait for the discussion of the evaluation of the Statistics course of this year. It will be discussed today and based on the feedback from the PC, the PD will talk to the teacher.

- 445a – *Remains on the list*

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The email will be forwarded by the PD.

- 447a – *Remains on the list*

It is still ongoing.

- 449 – *Item can be removed from the list*

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The PD says that the person that was supposed to teach this course has resigned. Glas has been asked to take it up. The PD is in full communication with Glas to improve the course. There has also been communication between Glas and the current lecturer. There is a component that Walter is doing, but since this is only in quartile 4, the first urgency is fixing things for quartile 3. Geerts states that Walter probably has ideas about improving the course. He also advises looking at how the course was before the current teacher, they do not need to start from scratch. The PD says that Glas already received that

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comment.

Therefore, this item can be removed from the list due to a teacher leaving and another teacher taking over.

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- 450 – *Can be removed from the list*
 - 451 – *Can be removed from the list*

The B-coordinator has just published new information on the bachelor assignment, so now she will inform the teachers. She still has to think about the consequences of supervisors not being present at the final presentations.

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- Proksch asks if the B-coordinator has sent the invites for the presentation. No, she has not since the teachers are linked to it in the timetable.

3. Announcements

There are no announcements.

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4. Advices / correspondence

- *Mail to Scheinhardt – anticipating changes in project Module 8 for AM*

No comments

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5. Evaluation reports bachelor courses

- *Module 1 2022-2023, SEQ*

The chairman suggests that LS I is fine, and needs no further attention. Modelling and Project, and Programming are also fine. It might be good to look at the comments on Calculus and Analysis.

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- *Module 1 2022-2023, evaluation report 2*

The chairman asks the students what they hear from the first year students regarding Calculus and Analysis. Van der Veer says that Mandal is difficult to understand, especially in the beginning. Furthermore, the gap between high school and university is hard to overcome and there is little support for that. The chairman says he reads the opposite of Pranab being difficult to understand. Lanting says that they found him difficult to understand in the beginning, but that changed during the module. Therefore, that might not be reflected in the comments. She adds that from what she has heard from the students, she thought the evaluation is rather positive.

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Lanting adds that two out of 43 passed the first exam, with an average grade of 2.9. Some students said that not passing was fully their responsibility since they spent too much time on LS I. Geerts says that the students should just get used to the difficulty and the speed. However, Geerts thinks that in module 1, there could be more guidance to help them with this. Boon adds that LS I is a good introduction to analytical thinking. Mandal cannot build on that too much now, since Analysis and LS I start at the same time. Therefore initially he was difficult to understand for the students. Berg adds that students feel like the fault is all on them. He agrees with Geerts that more guidance could be given; the fault is not entirely on the students.

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The chairman thinks the reasons are foreign teachers not knowing the Dutch high school system, a changing high school system, and corona times. Geerts mentions that not

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95 having intermediate or simple homework assignments is not helping the students. There
were comments that there were only hard homework exercises that were even harder
than the exam. The PD says that in the tutor sessions, these hard questions are
discussed. The tutorial questions are easier, but several students are skipping the
100 tutorial sessions. Lanting thinks that the issue is also that the students put much more
importance on homework exercises for the tutor sessions than the tutorial exercises.
Due to time constraints, they then skip the tutorials. It should be made clear that the
homework exercises are not meant to be totally solved. She thinks that the tutors should
explain how to handle analysis questions. Also, older year students can explain how to
study and plan their time as the freshmen need this kind of guidance.

105 The PD says that for the tutor sessions, we do need mature mathematicians since it is
challenging material. The students say they have no time to do tutorial exercises. He
thinks that the programme management has created time in the timetable, but it is not
used by the students. The chairman says that we could address the bridge from high
110 school to university. Apparently, some teachers are not informed of this gap. There is
also the high school curriculum change. Is anyone in the programme management
informed of these changes? Lanting says that people of the ECB department know about
this topic. The chairman says that teachers have mentioned that there is a gap between
what the students have learned and what the teachers expect.

115 Schuller thinks that the bridge is not content-wise, but style-wise. Students need to
know the definitions to pass analysis, and students consistently fail to do so. If that is the
gap, he does not know what we can do about it. Lanting agrees, but what she meant
with the gap, is that students in high school are taken by the hand, and in university
120 there is nothing. The difference is in the speed and the type of support. She proposes to
have older year students help first-year students to figure these things out, to help with
things like planning and such.

125 The chairman suggests having graded homework assignments for the tutor meetings, so
that students feel the need to really look at the definitions. Lanting and Geerts think that
then the level of those assignments should be more like the exam. The PD says that the
tutor questions are harder because they are supposed to work them out with a tutor.
We are struggling to get students to come to tutorials without feeling stressed out.
Lanting says that the students don't know how to plan in the beginning, so of course
130 they are stressed out.

The chairman asks the teachers if graded homework is a good idea. Schuller thinks it is
not. The chairman asks what else could be done then. Geerts advises implementing
student tutors that help with planning and such. Schuller thinks that we need to make
135 them realise what needs to be done to bridge the gap. The chairman asks the PD what
he thinks about student tutors. The PD says that he is investigating whether some topics
can be shifted to module 2. Also, he is thinking about whether they should call Calculus
and Analysis a semester course. He thinks that tutor sessions are a good idea and
working. The chairman says that the question was if older year students are of value in
140 the first quartile to get the first-year students started with how to study. The PD says
that he wants to give the right signal to the first year students, and he does not want

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older year students to tell them that they do not need to go to tutorials if a course in their experience is “easy”.

145 The chairman asks the question: How do you want to offer Calculus and Analysis next year? There will be an evaluation for module 2, and then a new plan can be made. Boon says the idea of combining Analysis and Calculus was to make Analysis better understandable and to give more context. Has that been achieved? The chairman says he does not think we can judge this with the current information.

150 **Action point: PD**

Make a new plan on how to offer Calculus and Analysis next year.

155 The chairman wants to discuss the topic of locking lecture rooms when starting the lecture. He thinks it is childish. However, there is a colleague who did this. The students of the PC think it's too harsh and a bad idea. Schuller thinks we have to know the reason for doing this, or else we cannot judge this action. He would not have locked the door, but he can understand the emotion for doing this. The chairman thinks it is okay if he conveys to this teacher that locking the door feels a little bit childish.

160 - *Module 5 2022-2023, SEQ*

165 The chairman thinks that Analysis II does not deserve too much attention. Next year Statistics is of a different number of ECs. This course is problematic because the material is outdated. There is a schedule, but when there is some deviation or delay, it is not updated. Furthermore, the lecture notes are from some years ago and contain many mistakes. It should be updated, and when the teacher is asked to do this, he says it indeed should be updated but it takes a lot of time. It has not been done, therefore it does not feel like the teacher is committed to the course. The chairman is worried about this. The students of the PC came to the same conclusion.

170 **Action point: PD (436 changes into 436a)**

Ask the teacher for a design of a Statistics course for the next academic year.

175 If the course does not change, then the teacher will be asked to come to the PC. How could it be that something doesn't change over so many years, only because it takes time? The PD agrees that there is no reason why the mistakes should not be corrected. The chairman says it is clear there should be an attempt to create a good course. The PD adds that there has to be work anyway due to the new curriculum.

180 - *Module 5 2022-2023, evaluation report 2*

- *Module 2 2022-2023, evaluation halfway*

The students have not heard anything in particular. The PC will see the final evaluation.

- *Module 6 2022-2023, evaluation report 1*

No comments.

185 **6. Evaluation reports master courses**

The chairman says it would be nice to see the response to Game Theory. The signal values are good.

- *Nonlinear Dynamics*

No comments made.

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- *Complex Networks*

The chairman says that there was a very positive evaluation. The M-coordinator adds that there were some issues during the course, but they were handled very nicely by the teacher.

- *Statistical Learning*

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The chairman says that it feels like this course is under development. There are things to improve, and teachers are aware of it. The M-coordinator adds that there seems to be a good self-reflection of the teachers on the course. Lanting says that the teachers were very open to feedback.

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7. Mastermath

- *Provisory minutes OC-meeting 14 October 2022*

No comments.

8. AOB / Questions before closing the meeting

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Lanting says that she heard that all double-degree students with Physics have dropped out in module 1. They stopped with the double programme, and only one stuck with mathematics. The B-coordinator says that as far as she knows, one stayed with the double degree programme (out of six that started). Lanting wonders if this reflects how doable the double degree is at the moment. The B-coordinator says that we have learned from the study advisor that most students had a choice problem. They did not know which study to choose and therefore they decided to choose the double degree programme. That's why they dropped out.

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Lanting says that the double degree students had compulsory lectures of Physics during Analysis lectures. Boon concludes that they had to do Analysis without any lectures, which is really hard. Lanting continues by saying that even if it is a choice problem, we are forcing them to choose the other study. So regardless, she still has her doubts. The B-coordinator says that she checked the overlap, and she cannot recall this problem.

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Lanting asks whether it would be an idea to look into this. This is what she has heard from some of the double-degree students that stopped. The B-coordinator says the students complained about many deadlines.

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Boon thinks that with the changing of the Mathematics curriculum, a lot of the overlap has gone. If it is not compatible anymore, why offer it? The chairman says that it is essential to offer it. It's the closest connection of any two programmes on Earth. Boon asks why it is not compatible now. The PD says that we don't see that Q1 has more workload than in the previous years. The amount of study points is still the same. The problem is the practicals of Physics and the tutor sessions from Math, where both are time-consuming. The chairman points out that the tutor sessions are flexible, and they could be rescheduled to better fit the timetable of the double degree students. The B-coordinator says that they did that already.

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Action point: B-coordinator

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Make an inventory of the real bottlenecks of the double degree programme with Physics and Mathematics.

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The PD and the B-coordinator are already in the process of arranging a meeting with Physics to discuss this.

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The missing items in the agenda are dealt with now.

Intended learning goals and content for Mixed-Integer Optimization by Walter from October 14.

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The chairman remarks that the context has been expanded and the learning goals have been added. Van der Veer comments that it is not decided which software will be used. The chairman says that he thinks it is fine if the teacher decides on that. It does not need to be specified here. The software will be accessible to the students.

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The chairman suggests that the PC endorses this description.

Action point: Chairman

Write a positive advice for the new learning goals and content for MIO.

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Suggestion for module 8

The PD thinks it is a logical change that came about since the other programmes are no longer participating in the project. The PC reads that the courses will become more mathematical since they are given separately from IEM now. Who will teach the courses to the IEM students? The document says that module 8 is completely separate from IEM now. This addresses the issue that the level was too low since IEM students also had to be able to follow the courses. Boon says that the only course that will be separated is Stochastic Models. The PD is supporting this change for the AM programme. The learning goals have changed, but they are still fine.

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The PC is happy with the proposed changes. We see that the AM students are getting the attention they need.

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Action point: Chairman

Write a positive advice for the proposed setup of Module 8 and the learning goals.

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Geerts addresses the PD by saying the following. You say you were doubting to implement student tutors in module 1, since you want to make sure the right message is conveyed. Can we help in some way? The PD is going to talk to the students from the PC to see what they can do.

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Boon has a suggestion for Analysis. He suggests starting the first tutorial/lecture with the intuition the students already have from high school so that the connection of dots starts.

The chairman says to the PD to please note there are students here willing to give feedback.

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9. Closure

The chairman closes the meeting at 17.12.

Next meeting: 21 February 2023

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Nr	Description	Meeting	Responsible
436a	Ask the teacher for a design of a Statistics course for the next academic year.	17/01/2023	PD
445a	Send the updated learning goals of the course MIO for discussion and approval of the PC.	15/11/2022	PD
447a	Create a course proposal for Capita Selecta.	15/11/2022	PD
452	Make a new plan on how to offer Calculus and Analysis next year.	17/01/2023	PD
453	Make an inventory of the real bottlenecks of the double degree programme with Physics and Mathematics.	17/01/2023	B-coordinator
454	Give positive feedback for the new learning goals and content for MIO.	17/01/2023	Chairman
455	Write a positive advice for the proposed changes for AM-Module 8 and the learning goals.	17/01/23	Chairman