

# UNIVERSITEIT TWENTE.

To: Dr. P.K. Mandal, Programme Director AM  
From: Programme Committee AM (OLC-TW)

## FACULTY OF ELECTRICAL ENGINEERING, MATHEMATICS AND COMPUTER SCIENCE

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SUBJECT  
Negative comments on proposed new courses

Dear Programme Director,

We have discussed the various newly proposed courses, and we think some of these need to be adapted before we give a positive advice.

In general, we have the following comments regarding the wording.

- 1 In the learning goals they start with "students" but it should target a single student, also it should not read "expected/will be able to" but "are able to".
- 2 In the participating studies, the fields refer to the bachelor programmes not the masters (eg biomedical technology instead of biomedical engineering), that does not seem correct.
- 3 Without motivation, obligatory attendance for lecture and tutorials is asked. We think such motivation must be present. Otherwise it can just be set to "no" instead of "yes".
- 4 Background information is too vague. We have highlighted this before, one should specify specific modules and/or courses as otherwise it is unclear for prospective students what lecturers will expect.

### 1. Reinforcement Modelling

The learning goals and the content are too vague. We think the current proposal is too much a draft and should first be expanded. We would like to see a new description before we write a recommendation on this one.

### 2. Deep learning for medical image analysis

The learning goals are somewhat unspecific. They look ok, but it is unclear what will be actually tested as a topic or method, nor is it clear how it connects to the specific topic descriptions. Four books are recommended, but none are required, then it is hard for students to make a choice which one they should choose. Background information is too vague, one should specify specific modules and/or courses. For instance, is the ruimte-meetkunde in the bachelor sufficient for M-TM students?

### 3. Case studies in DS&AI

The field "Test" is empty. We advise to add a written report here. The learning goals are too general as they seem not necessarily related to AI4Health. We agree with having multiple codes here, numbering them will help.

### 4. Uncertainty Quantification and Data-driven Modelling

In the required knowledge, numerical methods for solving PDEs are mentioned. Is the course "Numerical Techniques for PDEs" by Geurts and Schlottbom relevant enough? If not, what other course would be useful? Intro to PDE (course number 201700034 by Akkaya?) Note that both intro to PDE and Scientific Computing are taught in 2A, so recommending them is not smart, as you cannot expect students to have followed this course. The BSc course Numerical Mathematics does not cover it.

Why do lectures and project unsupervised have mandatory presence? There is no motivation for that choice. The form states there is no resit? That is almost against the rules. And it seems that an additional oral examination is easy to organize.

Also here, we expect the learning goals to be reformulated to a singular student as it applies to a single student. The last learning goal states "their own projects" which is problematic. This implies that students have one, and should bring it. But perhaps the lecturer thought of something else?

### 5. Graphical models and causality

The participating studies are not specified, and there is no motivation for obligatory attendance. Two books are required, but the description explicitly states to follow the free one only. We suggest to change the latter to recommended.

Lastly, we recommend not to create a new course Time Series Analysis. We also oppose to the idea that the software R should be mentioned in the course name. This is better mentioned in the course description. Also, the new teacher will probably make subtle changes, and this is fine. If that leads to changes in learning goals for this course, we welcome such a proposal. It may be a good idea to mention that the course will change this time and students looking for the old version should contact the lecturer and the previous lecturer too. This can simply be mentioned in the content description.

Looking forward to the new versions.

Best regards,



Hil Meijer,  
Chair PC-AM