Evaluation report Experimental Techniques in Physics of Fluids

193580020 *Dr. D.P.M. van Gils*

The evaluation committee has evaluated the course Experimental Techniques in Physics of Fluids by out a paper questionnaire to 19 students.

The course Experimental Techniques in Physics of Fluids scores an average mark of 3.9 which is sufficient for a master course. The statements 'The teacher was available for questions' and 'The contents of the course are interesting' score the best with both a 4.5. The statements 'The course was suitable for self-study' scores the lowest with a 3.4, which is insufficient. It was unable to deduct from the questionnaire why the students have this opinion. One topic that catches the eye, and is reported frequently, is the time scheduled for the course. Students think they spent more time on the course then the 5EC suggests. One student suggests to add some lectures for non-physics students in order to clear some basic physics/experimental content. This might increase the students understanding and efficiency in the course and therefore decrease the study load. Students also remarked that the assignments could be clearer, because they didn't know what was expected from them, with regard to both the report and presentation. At last, the lecturer also received some compliments from the students about his lab tours and lectures.

These are the main conclusions of the evaluation. The interpretation is based on the remarks of the respondents. For an overview of the results, see the graph at the end of this report.

Recommendations of previous evaluation

No previous report was found. It is therefore not possible to state the recommendations of the last evaluation.

Recommendations by the committee

The quality of the course can be improved. Based on the results of the questionnaire, some recommendations for improvement are provided. The most important recommendations are:

- Look into the workload of the course. Students think the workload is higher than suggested by the 5EC.
- Consider to add some lectures for non-physics students in order to clear some basic physics/experimental content. This might increase the students understanding and efficiency in the course, and therefore decrease the study load.

Response from the lecturer

My teaching assistants and I acknowledge the feedback and will address it in this year's course. I am happy that the course was viewed interesting by many and that the lectures were well appreciated. Concerning the proposed recommendations:

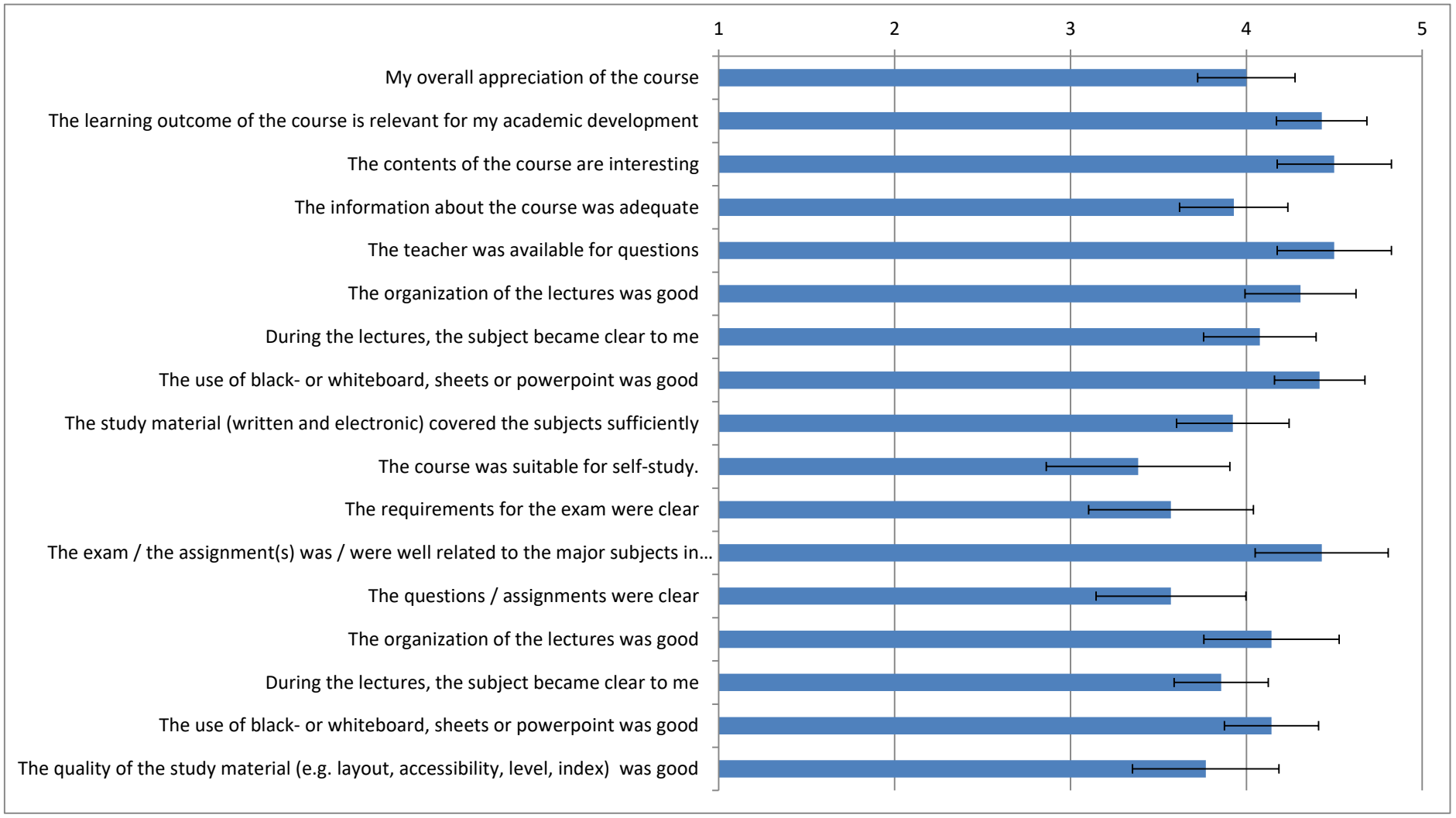
We will lower the load by offering easier and/or less homework assignment problems. Also the final lab assignment will be kept to 1 week measurement time in the lab at maximum. But please be aware that we try our best to come up with lab assignments that aid and extend the ongoing research in our group, and that they are not predefined measurement assignments with a clear and known outcome at the start. It's true science. Assignments differ hugely from one to another and, hence, some can require more lab time, which we will try to balance with helping you out with the data analysis and saving you time there.

2) Consider to add some lectures for non-physics students in order to clear some basic physics/experimental content. This might increase the students understanding and efficiency in the course, and therefore decrease the study load.

This is a bit more complicated, but I think we have a good solution. This course, although open for many Master programs, is a physics Master course, after all. There could be a substantial difference in background amongst the students, depending on their curriculum, and we simply cannot cover all physics topics that non-physics students are not fluent in. We will guide them on their way when they ask questions, such as explaining in detail how to calculate a probability density function of discrete data, but autodidactic efforts are expected as well on a Master level in general. We noticed that the homework assignments and some lab assignments rely heavily on data analysis in either Python, Matlab or Mathematica, which physics students are trained in, but some non-physics students aren't. This appears to us as the major time occupation to master when you're not familiar with them. This year we offer an extra tutorial/lecture to be planned in the first week, additional to the existing lectures, where we will teach you basic Python for science.

Overview

- All marks are given on a Likert-scale from 1-5. For master courses, a mark of 3.5 or higher is sufficient.
- The height of the bars in the graph represents the mark. The thin line at the top of the bars gives the standard deviation


1
2
3
4
5
My overall appreciation of the course
The learning outcome of the course is relevant for my academic development
The contents of the course are interesting
The information about the course was adequate
The teacher was available for questions
The organization of the lectures was good
During the lectures, the subject became clear to me
The use of black- or whiteboard, sheets or powerpoint was good
The study material (written and electronic) covered the subjects sufficiently
The course was suitable for self-study.
The requirements for the exam were clear
The exam / the assignment(s) was / were well related to the major subjects in…
The questions / assignments were clear
The organization of the lectures was good
During the lectures, the subject became clear to me
The use of black- or whiteboard, sheets or powerpoint was good
The quality of the study material (e.g. layout, accessibility, level, index) was good