Final Report
KJM5240/9240 – MASS SPECTROMETRY – V2022
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CHANGES
Only very small changes were implemented as compared to the course taught in previous years.

ATTENDANCE
Due to the COVID pandemic, the course was initially taught via Zoom (17.01.-07.02.2022). Physical lectures started on 10.02.2022. 12-15 students typically attended the course in the auditorium.

ORAL EXAMINATION
The KJM5240 examination list included 23 candidates. Grade distribution: A(2), B(6), C(5), D(4), E(1), F(0). 4 students did not attend the exam. The KJM9240 examination list included one candidate who passed the exam.

VIDEOCONFERENCING AND PODCASTING
All lectures were recorded and made available as podcasts on the course webpage.

LEARNING MATERIALS
The lecture slides (343 pages; pdf) and the repetitions and exercises slides (250 pages; pdf) were made available on Canvas. For those who wanted an extra textbook, I recommended *Mass Spectrometry for the Novice,* J. Greaves, J. Roboz; CRC Press; ISBN 9781420094183. It was not mandatory to use/acquire this book.

FEEDBACK
Students were given the opportunity to give anonymous feedback on Canvas. Six students gave a feedback. The responses are summarized on the next pages. The course received a very positive feedback. Some of the suggestions will be taken up in next year's course.

ANONYOMOUS COURSE FEEDBACK ON CANVAS

What did you like about the course?

Student 2:

I really like the repetitions and learning checks that we have been doing. Even though I don't answer in plenary because of the lack of self-esteem when it comes to speaking about chemistry in english, it gives me time to reflect on the subject matter.

It was also very nice with the recordings of the lectures, because it was possible to follow the lectures from home and to go home and watch parts of the lectures again if something is difficult.

Student 3:

I really liked the questions we had in the first parts of the lectures, and in general i think the lectures was very good.

Student 5:

I liked that there were plenty of educational videos included in the lectures. This made the concepts easier to grasp.

The repetition and learning checks were very useful to repeat what was covered in the previous lecture and to give an idea of what is expected of you during the exam.

The lectures were clear and included enough images in order for us to understand the concepts.

I also think that it is really good that the lectures are recorded. This way we don't miss anything when we cannot make it to the lecture itself.

Student 6:

I like the mix of both learning and repeating. Makes it much easier to get a clearer view of what we have been through and also testing your own knowledge.

Student 7:

I liked the repetition exercises that made us think more about the material ourselves.

Student 8:

The digital lectures worked really well. I also like that all the lectures (and repetitions) are recorded. The whole subject seemed well planned, and the different topics we covered were done so in a logic order.

Also, I found the topic I've named 'Practical use of MS' very usefull and interesting. Having to interpret mass spectra and figure out the mass (or name) of an unknown compound is really valuable and relevant.

What did you not like about the course?

Student 2:

In the beginning I was a bit lost, because I barely knew what a mass spectrometer was. I don't know if it is even possible to start at a lower level than what we did, but I would like it. It would also be useful with a solution proposal to the repetitions and learning checks.

If it would be possible to do so, I think many would like to see the mass spectrometers in the labs or maybe even parts of it. Sometimes things can be a bit abstract if you haven't seen it before and lack experience in the lab.

Student 3:

Overall the lectures where very good, just some topics was a bit harder and less interesting than others.

Student 5:

I would prefer it if the powerpoints were separated per lecture and not as one big file to which the next lecture slides are added. This would make it a bit easier to use them afterwards. However, it is not a big issue if they remain like this.

Perhaps you could give an overview of which topic(s) is treated in every lecture, so that we can more easily prepare for that lecture, for example by reading in the books.

The lecture given by the PhD student was nice, however it went very fast. It might therefore be nice if you could repeat the most important things in, for example, the next lecture.

Lastly, if the lecture falls in the 12.00-14.00 block, it might be nice to have a slightly longer break (10 min) to give us the chance to eat something in between.

Student 6:

Would have liked at the start to have a bit of an overview of the curriculum, this could be a file on canvas so it would be easier to know what comes next and what we need to know for the exam.

Student 7:

I would be useful if we were given an overview of the lecture plan at the beginning of the semester so that we know what we are going to go through. That would also make it easier to prepare for the lecture and read a little beforehand so it is not a surprise every lecture what we are going to learn.

I would also appreciate some more exercises/presentations during the course of the semester such as presenting a research paper or a written hand-in to make us go more in-depth about a certain analyzer or ionization technique. This would challenge us a bit more and help us learn the material better for the exam.

Student 8:

It's hard to tell. I personally would appreciate a quiz of some sort, because that would be like a quality check that I am following the lectures.