

Final Report
KJM5240/9240 – V2017
Armin Wisthaler

CHANGES

Only minor changes were implemented as compared to the course taught last year.

ATTENDANCE

The course was well attended, with typically 16-18 students in the audience.

ORAL EXAMINATION

The KJM5240 examination list included 20 candidates: 3 candidates received an “A”; 5 candidates received a “B”; 4 candidates received a “C”; 8 students did not show up to the exam. The KJM9240 examination list included 4 candidates: 3 candidates passed the exam, 1 student did not.

VIDEOCONFERENCING AND PODCASTING

There was no interest from other students in Norway and the lecture was not video streamed. Selected lectures were podcasted upon student request.

LEARNING MATERIALS

The students received copies of the lecture slides (336 pages; hardcopy and pdf). Movies and animations were posted on Fronter. For those who wanted an extra textbook, I recommended the book: *Mass Spectrometry for the Novice*, J. Greaves, J. Roboz; CRC Press; ISBN 9781420094183. It was not be mandatory to use/acquire this book.

FEEDBACK

Students were given the opportunity to give anonymous feedback using a web-based form at Suggestion Ox (<https://www.suggestionox.com/>). Unfortunately, I received only 4 feedback forms. Those are attached below. Some suggestions by the students were very good and will be implemented in next year’s course.

Feedback to KJM5240/9240

Overall the course is very good, and I liked the curriculum. It is not just a lot of formulas and theory, but information one can use in the daily lab work. I especially liked the part about interpretation of mass spectra. On the other hand I think there should have been more solving exercises by working in groups or alone and not just the whole class being asked questions. I personally don’t learn as much by that type of lecturing. And not everybody is comfortable with answering questions in front of many people. There could also have been hand ins of written excersises and not just oral and in plenum. The answers to the exercises should also have been put out on fronter. That way, if you were not able to participate in a lecture, you could still check that you solved the exercises correctly.

KJM5240

The lectures and repetitions was a very effective way of learning the course curriculum.

However for the more unsure or quite students, it is very hard to engage into the Q&A during the repetitions.

That being said, it most certainly is needed, especially at this point in our education. It is a suited format for this course.

The use of animations and movies, makes hard mathematical principles easy to understand concerning the background for the different m/z analyzers.

KJM5240 - Mass spectrometry

I have nothing to really pick on. This has been one of my favorite courses. I loved the theory and I loved the way it was lectured. Armin, thank you for that. I don't think you need to change anything about it. Every lecture felt so natural and relaxed.

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What I liked about the course:

- * The usage of figures for explanations.
- * The usage of equations for explanations.
- * The "questions-session" in each lecture.
- * The circular arguments of fellow students.
- * The PhD-lecture about IRMS and the one about ESI.

What I did not like about the course:

- * I could not find a book on the right level to help me while reading for the exam, I found the recommended book to be quite superficial on some of the subjects. Maybe some research articles or summaries could be suggested.
- * Some of the videos were quite slow, I almost fell asleep of one about chromatography.
- * The quality of the lectures from the PhD students were varying. Some would need some simple introduction to presentation techniques (not write full sentences in the powerpoint, take small breaks between sentences, adapt the scientific level to the audience).

What could have been done better:

- * There were only some students who answered in the "question-session", I think it would help to let people discuss the assignment for 1 min with the person next to them (one professor in mathematics (Knut Mørken) did it like that in his lectures and more people dared to answer).
- * There could be more equations.
- * It has been a while since I had physics so it would be great to have a short summary of electromagnetism in the first lecture.