

Kursrapport MM7033 HT23 period ABCD

Antal respondenter: 1
Antal svar: 1
Svarsfrekvens: 100,00 %

. Beskrivning av kursupplägget.

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This is a master level course, mandatory for the master program. It is intended for students who took an abstract algebra course (e.g. MM 5020 or an equivalent). It covers an assortment of topics, emphasising breadth over depth. It was the first time the course was offered.

Students had two hours of lectures and one hour tutorial per week. There were biweekly homework assignments, worth up to 4 bonus points. Students had an opportunity to give an oral presentation of a solution to an exercise, for one bonus point. 29 students turned in at least 2 homework assignments. 18 gave an oral presentation. 21 wrote the final exam, and 5 did the re-exam. Altogether, 18 students passed the course.

The textbook was Abstract Algebra by Dummit & Foote

. Kursens fördelar, beakta studenternas uppfattning i kursutvärderingar.

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Students were exposed to a variety of important topics in abstract algebra. The students found the material and the assignment interesting, if challenging. Students also appreciated the opportunity to give an oral presentation.

. Kursens nackdelar, beakta studenternas uppfattning i kursutvärderingar.

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There were, perhaps, a bit too many topics touched upon. As a result, we did not get to cover many deep results. Sometimes it felt that as soon as we got to a point when we could teach something interesting, we had to move on to the next topic instead. Quite a few students remarked that there was a lot of material, some topics were rushed through, and they did not have enough time to digest it properly. A couple of students said that the homework assignments were too demanding. But on the other hand we notice that most students indicated that they did not work more than 12 hours a week on the course. The students found the final exam challenging. But they could get up to 5 bonus points from homework and oral exam.

. Slutsatser samt förslag till förbättringar.

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The instructors think that it would be better to cover fewer topics, and do it more thoroughly. In retrospect, we probably should have left out the section about projective, injective and flat modules. The lecture on symmetric and exterior powers also does not seem worth the trouble. Also, the instructors think the textbook is too encyclopaedic, and a bit pedestrian. For example, hardly any examples of modules over rings that are not PIDs are considered. It might be better to have a textbook that covers fewer topics and has more depth and inspiration. Atiyah - Macdonald is one example of such a book. Another example is "Commutative algebra with a view to algebraic geometry" by Eisenbud. However, both these books are too advanced for a mandatory algebra course. Ideally we would have something in similar spirit but more on the level of Dummit-Foote
