

# Kursrapport MM5023 Mathematics III - Combinatorics HT25

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

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## . Beskrivning av kursupplägget.

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MM5023 is a course touching many topics within combinatorics. It builds on Algebra and Combinatorics and in part overlaps it. Topics covered are: rules of counting, inclusion/exclusion, rook polynomials, generating functions, recursion, graph theory focusing on Euler circuits, Hamilton cycles planar graphs and graph coloring, combinatorial approximation (minimal spanning trees, shortest path algorithms, and max-flow min-cut). In the past also an introduction to finite affine planes and their connection with latin squares was given, but this was removed from the course plan. We focused instead of furtehr application of max-flow min cut.

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## . Kursens fördelar, beakta studenternas uppfattning i kursutvärderingar.

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The pace is slow and the material seems appreciated by the students.

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## . Kursens nackdelar, beakta studenternas uppfattning i kursutvärderingar.

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This year we tried for the first time an hybrid format both dstance and online. This was after years that the course had been entirely a distance course. I would say that this new modality was not a great success. The distance students ened up having a worse pedagogical experience. Many of them complain about the audio of the lectuer hall. The campus students did not show up for the lectures. At the end of the class there were no more than 5, less for the exercise session. A students asks for less proof and more examples, but this is still a Matte 3 level course in the pure math division, so proofs should play an important role. Some students complained about the course page that was a bit outdated and did not reflect the new elements of the course.

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## . Slutsatser samt förslag till förbättringar.

### Slutsatser samt förslag till förbättringar.

We should think if keep this course in hybrid format makes sense or not. It would be interesting to see how many distance students and how many campus students took the exam at the end. More distance students than campus students answered the suvey, which was answered by 14 people in total, less than the number of exam I graded. If we keep the hybrid format we have to find a way so that the distance students get an higer quality in their teaching. The webpage should be updated accordingly.

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