Kursrapport MT5012 Stokastiska processer och simulering II VT24

Antal respondenter: 3
Antal svar: 1
Svarsfrekvens: 33,33 %

. Beskrivning av kursupplägget.

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The course is divided into 5 topics, each taking 2 or 3 lectures.
1) Poisson processes and continuous-time Markov chains
2) Renewal theory
3) Queueing theory
4) Simulation
5) Brownian motion

. Kursens fördelar, beakta studenternas uppfattning i kursutvärderingar.

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I think the course gives a good overall knowledge of the various topics.

. Kursens nackdelar, beakta studenternas uppfattning i kursutvärderingar.

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According to the students, there are too many topics in a short period of 2 months, each of them taking less than 2 weeks, which makes it difficult for the students to really understand the theory.

. Slutsatser samt förslag till förbättringar.

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I think the first three topics are very important to keep, but maybe something can be done either with the Simulation part or the Brownian motion part.
The computer assignment related to the simulation chapter usually are no problem for the students, but I noticed that many students fail to answer basic theoretical questions on simulation at the exam.
The Brownian motion part is the most difficult for them and it comes with just 4/5 hours of lecture two weeks before the exam. I don't know if it is necessary for this course, but I know many students struggle with that.
Overall, I think the main difficulties are due to the lack of preparation before joining this course and I am afraid this will get worse since the new Master program will attract students coming from Statistics or Computer Science, hence lacking a strong mathematical background.
However, I find it surprising that students fail to answer basic questions at the exam, such like "state theorem X" or "prove theorem Y", especially after I told them that I would ask questions of this type (and proofs are no more than 1 slide long). It seems to me that they simply don't study much.