Course Analysis: SF2940, Probability Theory, 2016

Course Data

- SF2940, Probability Theory 7.5 ECTS
- Period 1 , 2016
- Responsibility: Boualem Djehiche
- Teaching hours:
  - Lectures/exercises: 24+4 h
- Registered students: 243 (157 first time registered students)+ 8 PhD students
- Literature: Primary source: Lecture notes: Probability and Random Processes at KTH, by Timo Koski, Ed. 2014. Secondary source: A. Gut An Intermediate Course in Probability, Springer-Verlag 1995 or later editions.
- Credits:
  - homework: two homeworks which yoeld bonus points at the first exam.
  - Written examination: 7.5 ECTS
- Performance index (according to VIS): 70%
- Examination index (according to VIS) (students that passed the exam): 70%

Aim The aim of the course is to introduce basic theories and methods of pure probability theory at an intermediate level. For example, the student will learn how to compute limits of sequences of stochastic variables by transform techniques. No knowledge of measure and integration theory is required, and only bare first statements of that will be included in the course. Techniques developed in this course are important in statistical inference, statistical physics, time series analysis, financial analysis, signal processing, statistical mechanics, econometrics, and other branches of engineering and science. The course gives also a background and tools required for studies of advanced courses in probability and statistics. The course is lectured and examined in English.

Changes compared to the last year A number of typos in the course material has been fixed.

Conclusions The course was estimated as having just the right difficulty. It was considered very interesting and meaningful. The homeworks came to the point and their level was just right.

Teaching The teaching was done by lectures, exercises, and office hours. Homeworks have been evaluated during lectures or exercises.

Examination The examination based on homework problems and a written examination. A successfully solved homework gave bonus credits for the written examination.

Prerequisites With the exception of certain issues regarding Fourier transforms as tool, no problem. This concerns, in particular, Indek students that have no such course in their curriculum. But, we recall every item needed in the course.

Planned changes More worked out examples during the lecture. A more focused course content.

Grading No problems.