

**Sannolikhetsteori, del 1, 8.0 hp**

Probability Theory, Part 1, 8.0 credits

Forskarutbildningskurs

MAI0074

Matematiska institutionen

Gäller från: Första halvår 2023

**Fastställd av**  
Prefekt

**Fastställandedatum**

**Diarienummer**

## Behörighetskrav

Advanced undergraduate courses in probability theory and analysis. Measure and integration theory helpful, but not necessary.

## Kursinnehåll

Measure-theoretic foundations of probability theory; probability distributions; random variables; expectation; convergence concepts; laws of large numbers; characteristic functions; central limit theorems; conditional expectation and regular conditional distributions.

## Undervisnings- och arbetsformer

Lectures.

## Examination

Home assignments.

## Betygsskala

Engradig skala

## Kurslitteratur

Durrett, R. (2019). *Probability: theory and examples*, 5th ed. Cambridge University Press.