

The banner features a dark blue background on the left with the text 'Faculty of Sciences' in white. The right side shows a close-up of a person's face wearing glasses, looking at a chalkboard. The chalkboard has some white chalk drawings and the word 'Event' written on it.

Faculty of Sciences

MAT1371 Probability

[30h+22.5h exercises] 5 credits

This course is not taught in 2005-2006

This course is taught in the 1st semester

Language: French

Level: First cycle

Aims

The course aims to give a basic knowledge of probability theory. It is an introduction to the main tools that are necessary to tackle the big problems of statistical analysis and stochastic processes. After this course, the student will be able to calculate conditional and non-conditional expectations and to study the convergence of sequences of random variables (including asymptotic law).

Main themes

The course requires a knowledge of measure theory. It covers the essential tools necessary for the study of statistics.

The following topics are covered :

Random variables, dependence and independence.

Expectations and conditional probability.

Convergence of sequences of random variables.

Martingales.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Prerequisite : MAT 1322: Measure theory