

Mathematical Statistics: Master in Mathematical Engineering / Master in Business Administration and Quantitative Methods



TIMETABLE:

Timetable: Monday 12:00-14:00, Thursday, 9:30 – 11:30h

Room: Monday 11.1.30, Thursday 11.2.08

LECTURERS:

Theory: Isabel Molina Peralta (isabel.molina@uc3m.es)

Office: 10.1.18

Tutorials: Monday and Tuesday 11:00-12:00.

Problems: Leo Berbotto

Office: 10.1.20

Mathematical Statistics: Master in Mathematical Engineering and Master in Business Administration and Quantitative Methods



PROGRAM:

1. Preliminaries: Measure Theory and Probability.
2. Convergence concepts.
3. Laws of large numbers.
4. Central Limit Theorems.
5. Slutsky Theorems.
6. Convergence of functions of sample moments.

Mathematical Statistics: Master in Mathematical Engineering and Master in Business Administration and Quantitative Methods



BIBLIOGRAFY:

1. Ferguson, T. S. A Course in Large Sample Theory. Ed. Chapman & Hall (London), 1996.
2. Sen, P. K. and Singer, J. M. Large Sample Methods in Statistics: An Introduction with Applications. Chapman & Hall/CRC, 1993.
3. Ash, R. B. Real Analysis and Probability. Academic Press Inc.(London), 1972.
4. Serfling, R. J. Approximation Theorems of Mathematical Statistics. Wiley, 1980.
5. Chung, K. L. Elementary Probability Theory with Stochastic Processes. Springer (New York), 1979.
6. Chung, K. L. A Course in Probability Theory. Elsevier (San Diego), 2001.

Mathematical Statistics: Master in Mathematical Engineering and Master in Business Administration and Quantitative Methods



EVALUATION:

1. Exercises to hand in during the course: 40%
2. Final exam: 60%