Survival Models, Multivariate Extensions and Inference

Syllabus

Course code: 6380
Number of ECTS credits: 3
Semester: 1st (September-January)
Recommended components: It is recommended the studying of the subject "Characterization, Classification and Ordering of Distributions" (6377).

Language of instruction: Spanish (students are allowed to write homeworks and exams in English)

Course description

This subject presents students the basic knowledge of this area of research through the background and recent results related to the construction of survival models and some inferential topics. It is a complement to the Degree in Mathematics and a link with the Ph.D. in Mathematics.

Learning outcomes and competences

After completion of this course you will:

1. know and be able to apply the generating methods of multivariate survival models.
2. have the ability to apply and interpret survival models in various situations and scenarios.
3. know use the computer tools for simulation, estimation and fit of survival models.

Course contents

I. THEORY

1. Survival models and construction of multivariate extensions.
2. Competing risks models and complementary risks models.
3. Inferential issues and estimation algorithms.

II. COMPUTER PRACTISES

1. Simulation of survival models, multivariate extensions and applications.
2. Application of estimation algorithms of survival models.
References

Main texts


Supplementary references