

Linear Programming

Code: 103193
ECTS Credits: 6

Degree	Type	Year	Semester
2501919 Applied Statistics	OB	1	2

Contact

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Use of languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Teachers

Rosa Camps Camprubí

Prerequisites

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Objectives and Contextualisation

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Content

- 1- Introduction:** Examples of modelling in terms of linear programming.
- 2- Mathematical formulation:** Set up of the problem. Geometric solution in the case of two variables. Standard form. Basic solutions. The Fundamental Theorem of Linear Programming.
- 3- The simplex algorithm:** The simplex strategy. Tabular form. Two-phase method. Degenerated programs.
- 4- Integer linear programming:** Set up of the problem. Branch and bound. Binary variables.
- 5- Network linear flows:** The minimal cost problem and the simplex method on networks. Other linear problems on networks: maximal flow, transpost, assignment, and shortest path.