



Programme of Module "Decision Models"

- Code: DT0342
- Type of course unit: Compulsory (Master Degree in Applied Data Science curriculum Data for Smart City), Compulsory (Master Degree in Applied Data Science curriculum Data for Life Science)
- Level of course unit: Postgraduate Degrees
- Semester: 1

Number of ects credits: (Master Degree in Applied Data Science) 6 (workload 150 hours)

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1	Course objectives	
2	Course content and learning outcomes (dublin descriptors)	<p>Topics of the module include:</p> <ul style="list-style-type: none"> • Decision processes: definitions and phases • Deciding and valuing: relations and numbers, preferences as relations, utilities as values, Pareto curves. • Representation of individual decisions: alternatives, decision matrices, zero-sum games, Stackelberg games. • (Integer) Linear Programming models and algorithms. • Decision making under uncertainty/ignorance: stochastic, Bayesian and robust models. • Social decision theory.
3	Course prerequisites	
4	Teaching methods and language	Language: English
5	Assessment methods	