

ERM152 Decision-Making Methods and Tools

- Semester: First
- Type: Elective
- Instructor: Aggeliki Anagnostou and Spyros Niavis
- ECTS Credits: 6

The course "Decision-Making Methods and Tools" introduces fundamental concepts and working methods in order to optimize decision-making in the management of development programs. Students will learn how to use mathematics, statistics and software tools to analyze data and find optimal solutions to a wide range of problems and questions related, among other things, to the implementation of programs due to time and cost constraints, identifying the most vulnerable segments of the population exposed to a particular phenomenon under examination, the relationship between various phenomena, the success rate of past interventions, and much more.

Assessment

Students taking this course will be required to undertake a project in which they will use a data analysis tool to explore a given problem and work with a decision-making tool in order to arrive at an optimal solution (50% of the final grade). Students will also need to take an online final exam and answer a series of relevant questions (50% of the final grade). Explicitly defined assessment criteria are accessible to students in the regulations of the Joint Postgraduate Program (Article 15).

Indicative Bibliography

- Favero, L., & Belfiore, P. (2019). Data science for business and decision making. Academic Press.
- Kezdi, G., Bekes, G. (2021). Data Analysis for Business, Economics, and Policy. (n.p.): Cambridge University Press.
- Sallis, J. E., Gripsrud, G., Olsson, U. H., Silkoset, R. (2021). Research Methods and Data Analysis for Business Decisions: A Primer Using SPSS. Switzerland: Springer International Publishing.
- Winston, W. L., Albright, S. C. (2016). Business Analytics: Data Analysis & Decision Making. Brazil: Cengage Learning.

Related academic journals:

- Journal of Decision Systems
- Operational Research
- Omega