

Subject-specific skills:

- Be able to recognize, understand, and apply fundamental mathematical methods in the field of operations management (operations research, queueing theory)
- Be familiar with fundamental mathematical optimization methods (simplex method, heuristic methods for combinatorial problems, gradient method)
- Understand basic concepts of financial mathematics (interest calculations, present value, annuities, portfolio optimization)
- Be able to develop, analyze, and calculate mathematical models in economic applications
- Be able to solve applied economic problems (particularly optimization problems) using mathematical methods (including simulation tools)
- Be able to discuss and evaluate the results of mathematical methods in an economic context

Methodological competences:

- Be able to analyze problems, break them down into subproblems or reduce them to known problems, describe and model them mathematically, and select appropriate solution methods
- Be able to analyze and discuss mathematical models and simulation results
- Be able to use Python, Excel, or other simulation tools
- Be able to work in a group to appropriately model a real-world problem, solve it, evaluate and interpret the solution, improve it iteratively if necessary, and present it

Personal competences:

- Working independently
- Working in a group
- Critically reflecting on one's own approach to solving problems and on the results