

Module: OPM 450 Decision-Making Tools for Managing Operations

Contents:

Many organizations and even industries such as health care or education suffer significant consequences due to demand–supply mismatches. The underlying managerial and operations-related decisions are often very complex, involving many alternatives with different impact, and trade-offs between key performance measures (e.g., profit, cost, quality, and environmental impact) must be made.

This course provides managerial concepts and advanced analytical tools to help make “better” decisions and manage operations more effectively such that they are aligned with the overall strategic objectives. In particular, we will create models and use software such as state-of-the-art spreadsheet tools to analyze and solve different operations-related management problems typically arising in practice. The methods and tools taught in the course have become invaluable aids to informed decision making in order to improve processes, save resources, and create value.

Applications cover a broad range of industries, such as air and railway transport, retailing, public services, health care, manufacturing, etc. The course pursues an active-learning approach including lecture-style class sessions and computer-based exercises.

Learning outcomes:

Students will

- get an advanced understanding of the challenging operations-related decisions and problems in practice,
- learn about concepts and state-of-the-art tools for analyzing complex decision situations and for systematically evaluating options in operations management,
- enhance problem structuring, modeling and analytical skills.

Prerequisites:

Formal: -

Recommended: Operations Management (OPM 301)

Obligatory registration: yes **Further information on registration:** ILIAS

Courses	Hours per week	Self-study
Lecture & Exercises	2	4
ECTS in total		3
Form of assessment	Computer-based final exam (60 min.)	
Preliminary course work	-	
Lecturer/Person in charge	Prof. Dr. Cornelia Schön	
Duration of module	1 semester	
Offering	Spring semester	
Language	English	
Program-specific educational goals	LG1, LG2, LG3	
Grade	Graded	
Range of application	B.Sc. Business Administration	