

OPM 662 Business Analytics: Modeling and Optimization

Business Analytics helps to optimize decisions for future operations systems. This course introduces modeling approaches for planning and scheduling of operations. Operational and tactical planning tasks are formulated as linear and mixed integer linear programming models. All lectures will be given in a computer lab, where the optimization models are implemented and solved using standard tools of business analytics. Different heuristic techniques to cope with the complexity of real world problems are introduced and implemented. During the course the students will work on several case studies and assignments (individual and in groups).

Learning Goals

- Students learn how to structure operations planning and scheduling problems. They are able to translate them into mixed integer linear models and implement them in standard business analytics tools to derive optimal plans/schedules
- The students also learn to deal with the complexity of real world problems (e.g., via aggregation, relaxation, and decomposition techniques) and how to perform sensitivity analyses in order to obtain useful managerial insights

Prerequisites:

Successful completion of the course OPM 561 is required. Other modules may be accepted upon request

Registration/Enrolment

The course requires a registration through Portal2. More information can be found there.

General Information



Lecturer	Prof. Dr. Raik Stolletz
Course Format	One lecture and exercise each weeks
Credit Points	6 ECTS (4 SWS)
Language	English
Grading	Assignments Presentations Written exam or oral exam
Term	Spring Semester
Range of Application	M.Sc. MMM, M.Sc. Bus. Edu., M.Sc. Bus. Inf., M.Sc. Bus. Math., M.Sc. Econ.