

Main Seminar in Information Systems: Operations Research Summer Term 2024

Course Description:

Operations Research (OR), defined as the application of advanced analytical methods to make better decisions and optimize complex systems, serves as the linchpin for strategic management and operational efficiency. Attendees of the seminar will gain a comprehensive understanding of how OR methodologies, ranging from mathematical modeling to simulation techniques, contribute to enhanced decision-making processes, resource allocation, and overall system optimization. Each student is given a topic based on one or more contemporary articles published in top-tier OR journals. The task is to understand the methods presented in the articles and present it to the audience in an approximately 20 minute presentation. The weekly presentations are followed by extensive discussions about the respective topics.

Target Group:

This Seminar specifically addresses students from all IMP disciplines, as well as in the M.Sc. Economics and M.Sc. VWL programs. There are no formal prerequisites. Students should have a basic understanding of math and optimization techniques.

Registration:

Deadline: April 8 (end of day), 2024

Application via email to bernhard.lutz@is.uni-freiburg.de. **Make sure that the following information is provided:**

- First name, last name
- Matriculation number (Matrikelnummer)
- Transcript of records
- Attended lectures and seminars at our chair and grade obtained
- Email
- Study program, semester
- Short description of experience level in Python or R
- Personal preferences regarding one (or several) of potential topics: Energy Analytics, Urban Analytics, Social Media Analytics, Text Mining and Analytics of Financial Data

Response whether application was successful will be sent out shortly after the registration deadline

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Organization:

Weekly meetings: Wednesdays, 10am ct, room 01-012, Rempartstr. 16
First meeting: April 24, 2024
Oral exams: July 17, 2024, rooms to be announced

Weekly Consultation Hours:

Wednesdays 4pm ct, room to be determined
First date: May 8, 2024

Communication:

Communication is done via email. All materials are provided on Ilias.

Topics:

Exact topics along with hints on literature will be announced at a later point.

Policies and Procedures:

Grading: Own presentation (33%), participation in discussion (33%), and oral exam (33%).

Presence is mandatory in all meetings. Students are allowed to be missing once without providing an excuse.

ECTS:

6

Credit points are applicable to:

M.Sc. BWL PNPM: Allgemeine BWL, Wirtschaftsinformatik
M.Sc. VWL (2011): BWL, Wirtschaftsinformatik
M.Sc. VWL (2014): Business Analytics
M.Sc. Economics: Elective in Information Systems and Network Economics profile
M.Sc. Computer Science: Wahlmodule BWL und VWL

Chair:

Prof. Dr. Dirk Neumann
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