Universität zu Köln
Seminar für Supply Chain Management und Management Science

Hauptseminar Supply Chain Management and Management Science (Database)

(Master Seminar, Winter Semester, 2021/2022)

Course Description

Buying products and using services is part of our daily life. We buy books, groceries, and computers and we use telephones, watch movies, and fly on planes. When doing so, we demand high quality and good service at a low price. How these demands can be fulfilled is covered in supply chain management. Supply chain management is about designing, producing, delivering and selling products and services – and about doing so profitably. It has emerged as one of the most powerful business subjects and successful companies all over the world are using supply chain management to improve quality, increase customer service, reduce cost, and build new revenues.

In this seminar course, we discuss and implement selected concepts that are of particular relevance from a practical perspective. The course includes a student project that is supported by introductory lectures and individualized offline sessions. In the project, students will design and implement a supply chain tool. The input is a database including historical demand data, transportation times, potential storage locations etc. In the several lecture-type sessions at the beginning of the seminar, students will learn how to design, operate and optimize the database. They will then implement a tool that analyzes the data and provides decision support. The outputs are data analyzing report and supply chain related suggestions, such as inventory levels and storage locations for various products.

Course Administration

Faculty
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Assignments
There will be one homework assignment and one project

Handouts
There will be class handouts for each session, summarizing the main points covered. The handouts are typically available for download from ILIAS at least 24 hours before class.

Grading
The course will count 6 credit points (LP) for master students. The overall learning performance is evaluated based on a project:

- The project requires group work. Students within a group work together to give Part I presentation, Part II presentation, and submit final report.
- Composition of the final grade: Part I presentation (20%), Part II presentation (30%), and final report (50%).

Language
The seminar is taught in English.

Prerequisites	Interest in the field and working knowledge of quantitative approaches in business administration; Required courses: Supply Chain Operations (SCM-III) or equivalent The course is specially designed for students in the field of business administration, economics, and social sciences. Applications of Information Systems ("Wirtschaftsinformatik") students will not be accepted.
Literature	Required readings will be announced during the lectures

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Syllabus of Hauptseminar (Database)

Date	Content
Oct 12, 2021	Introduction to Database Design and Normal Forms
Oct 19	Microsoft Access
Oct 26	The Entity Relationship Model / Hand out of Homework& Project Phase 1
Nov 02	Solutions to Database Homework
Nov 09	Part I Presentation / Hand out of Project Phase 2
Nov 16	Q&A session
Nov 23	Q&A session
Nov 30	Q&A session
Dec 07	Part II Presentation
Dec 14	Q&A session
Dec 21	Q&A session
Jan 11, 2022	Guest Lecture (TBA)
Jan 18	Guest Lecture (TBA)
Jan 25	Q&A session
Feb 01	Submission of Project Paper

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