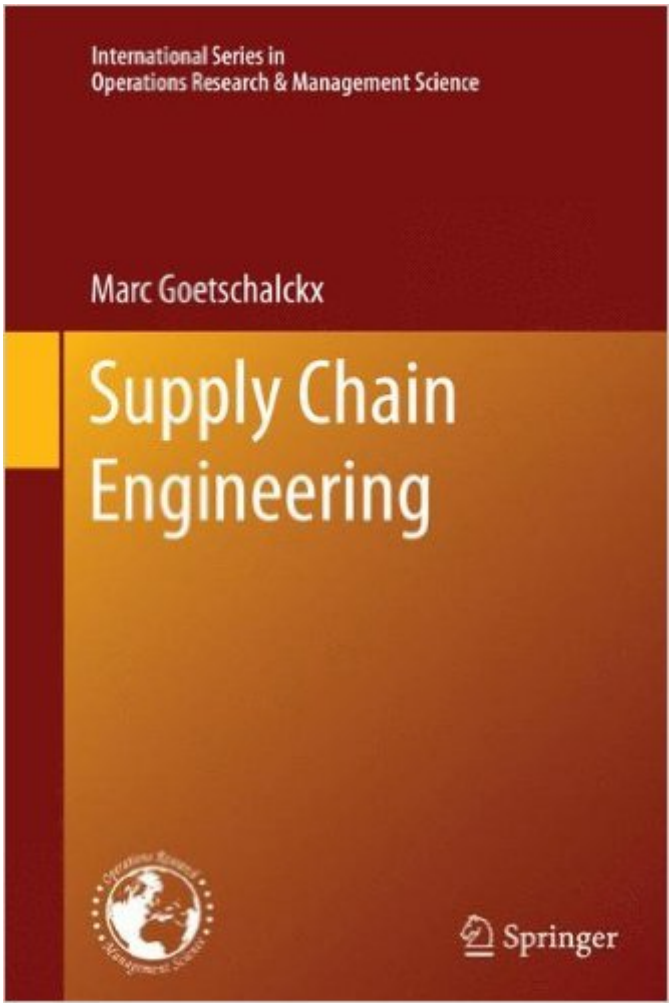
Supply Chain Engineering (International Series In Operations Research & Management Science)



Synopsis

The focus of Supply Chain Engineering is the engineering design and planning of supply chain systems.Â There exists a very large variety of supply chain system types, all with different goals, constraints, and decisions, but a systematic approach for the design and planning of any supply chain can be based on the principles and methods of system engineering.Â In this book, author Marc Goetschalckx presents material developed at the Georgia Tech Supply Chain and Logistics Institute, the largest supply chain and logistics research and education program in the world.The book can be roughly divided into four sections.Â The first section focuses on data management.Â Since most of planning and design requires making decisions today so that supply chain functions can be executed efficiently in the future, this section introduces forecasting principles and techniques.Â The second section of the book focuses on transportation systems.Â First, the characteristics of transportation assets and infrastructure are shown.Â Then four chapters focus on the planning of transportation activities depending on who controls the transportation assets.Â The third section of the book is focused on storing goods, and the last section of the book is focused on supply chain systems that consider simultaneously procurement, production, and transportation and inventory as well as the design of the supply chain infrastructure or network design.In each chapter, first a model of the process being studied is developed followed by a description of practical solution algorithms.Â More advanced material is typically described in appendices.Â This makes it possible to use an integrated, breath-first treatment of supply chain systems by using the initial material in each chapter.Â A more in depth treatment of a specific topic or process can be found towards the end of each chapter.Â End-of-chapter exercises are included throughout.This text is suitable for several target audiences.Â The first target is a course for upper-level undergraduate students on supply chains.Â The second target is the use in a capstone senior design project in the supply chain area.Â The third target is an introductory course on supply chains either in a master of engineering or a master of business administration program, and the final audience consists of students attending logistics or supply chain post-graduate or continuing education courses.Â

Book Information

Series: International Series in Operations Research & Management Science (Book 161)
Hardcover: 682 pages
Publisher: Springer; 2011 edition (August 11, 2011)
Language: English
ISBN-10: 1441965114

ISBN-13: 978-1441965110

Product Dimensions: 6.1 x 1.4 x 9.2 inches

Shipping Weight: 2.6 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 starsÂ Â See all reviewsÂ (3 customer reviews)

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Customer Reviews

One of the best books I have purchased and is now part of my OR library. The author has done a great job in explaining Supply Chain Network Optimization techniques by giving relevant real world examples. The author starts the book by going through the various modeling techniques, then deep dives into the Network design and optimization and ends the book by covering Supply Chain modeling techniques. The author has provided great exercise questions which will test the knowledge gained after reading each chapter. This book will greatly complement the Network Flows: Theory, Algorithms, and Applications by Ravindra K. Ahuja, Thomas L. Magnanti and James B. Orlin and I highly recommend this book to OR professionals, students and professors.

Students can have a deep understanding of the fundamentals and advanced models, which is explained with great clarity. It is a comprehensive text and the learned author and publishers should update and keep it relevant as a standard textbook.

Material in the book was fine to read, but it did an awful job of walking you through the process of solving some of the example problems. Not very intuitive and wouldn’t recommend it to other undergraduate students. Much better resources on the internet for much cheaper.

Supply Chain & Logistics Management Operations Management in the Supply Chain: Decisions and Cases (McGraw-Hill/Irwin Series, Operations and Decision Sciences) Operations and Supply Chain Management: The Core (Book Only) (McGraw-Hill/Irwin Series Operations and Decision Sciences) The Logistics and Supply Chain Toolkit: Over 100 Tools and Guides for Supply Chain, Transport, Warehousing and Inventory Management Managing Operations Across the Supply Chain (McGraw-Hill/Irwin Series in Operations and Decision Sciences) Operations Management: Sustainability and Supply Chain Management (12th Edition) Operations Management: Sustainability and Supply Chain Management Principles of Operations Management: Sustainability and Supply Chain Management (10th Edition) Operations and Supply Chain Management (The Mcgraw-Hill/Irwin Series) Supply Chain Logistics Management (Mcgraw-Hill/Irwin Series Operations and Decision Sciences) Purchasing and Supply Chain Management (McGraw-Hill/Irwin Series in Operations and Decision Sciences) Manufacturing Planning and Control for Supply Chain Management (McGraw-Hill/Irwin Series in Operations and Decision Sciences) Operations & Supply Management wStudent DVD Rom (McGraw-Hill/Irwin Series Operations and Decision Sciences) Introduction to Operations and Supply Chain Management (2nd Edition) Supply Chain and Logistics Management Made Easy: Methods and Applications for Planning, Operations, Integration, Control and Improvement, and Network Design Introduction to Operations and Supply Chain Management (4th Edition)